

741-900

Note (Jan 22 1900)

Mr. Kierig suggests the Nassau
Ampelosperma may be Cissus
arida L.

(Succulaceae)
Code for plant that Mr. Kierig
and most name from Miami
is Hypolete trifoliae P. Brown
also a common Whipplea cerifera
sparsinervia Don

(773 cont'd)

11-13 ~~are exp. down for space month w~~
~~contracted horns bent aside, all~~
~~moderate and well spined except 5d~~
~~6-10 which are absent or rep. by a few~~
~~short spines. Hd well attenuated & long~~
~~of 2. Leaf green, downy 3-5 shielded with~~
~~purple hairs bluish gray, the large on 1~~
~~sd distinct blue. The bright yellow-green~~
~~medal patch partly encircle horns ① of 5~~
~~or reaches lat. to ② of 3 and covers all~~
~~of 4-5 lat. spaces from 5 to 13 enclosing~~
~~① horn 11 and forming a notch at ①12.~~
~~It has a thin yellow edge & without a~~
~~blacked green narrow br. ringed also~~
~~above ① horn 11. Dorsum spines moderately~~
~~3, back dots (1)4) bay, (6), (2)(3) white, (5)~~
~~not seen. A white line along ss edge~~
~~with 2 setae on each seg. Spinules rare~~
~~reddish, 5 in black bay horn. Horn pur-~~
~~plish about the edge! Cch ^{spat.} black in~~
~~order, whitish centrally, Callosome patches~~
~~on ② 4, 6-12 & ① 13 large pos, dep spin~~
~~in elongate arms above ① 13 & ② 12. Skin~~
~~very densely spinulose, with spinos enlarged~~
~~at base, colored black out in dep spaces~~
~~now dark making him to d. green; be-~~
~~coming granulated S-V. Apices of the sd~~
~~horns bare or with a few large callosome-~~
~~purple dorsal of 3-5. All horns distinctly~~
~~bent in them before.~~

Expenses (808) New York 1890-91.

Set a plate larva Jan 29 in Beach heath
eating at the upper epidermis & yellowish
and reticulating it thin and blade 3642 3
and strongly flattened moderate yellowing
below without leaves had retracted
mouth dark. Two feet rather large and
prominent (descended through epidermis)
tail flat ^{and part} long all ~~yellow~~ yellow
and shiny. Hd. flat cypres ³⁹ angular
and shining yellow. Interna minute brown
teeth obsolete except last. No ² date. 99
2 flattish above transparent. Curved
margin and can about. Spur. 26662
and Feb 17 1908 cut no 15643

Mr.	"	"	79284
May	(780)		42255

The tiny leaf miners grew up with
the stony which was with 795
leaving without non-retigulation.

~~Aug. 10 farm bill retentives of \$540~~

~~July transvest, not green but all
Sept. from fair in the arbor 9453, 9201~~

Och värde, suggit. Klappar dit 3
1963

... and grass green, few white; grass
down white is not uniform. May 1933 25°

~~Don't green.~~ Dec. 217 84

180A white, speckled, numerous small ~~white~~ ^{yellowish} spots
ret. in birds. These at ~~the~~ ³ yester
-^d - the form is abnormal and sickly

180 B Trembles green, bd yellowish but has
a black spot on 3. Another all green
white. Another a little white with
faint brown on breast.

Received

Notodontian egg on cinnabar chestnut, color
of bat and ~~Crash~~⁸ 1899 Hemphillia at 5¹⁰⁰
or, dull reddish-brown. Very fleshy. 50
the greenish granules all over nearly obscured
the overall. Marginal reticulations meeting
in wide circle surrounded by a slight raised
ridge. D 1.2, height .6 mm.

Collected May 19. It is a bit resemble Nadotis
all pale greenish yellow. Hd mm, scaly
fibrous, shiny, no 6 mm. Rock, on the shade,
and feet projecting just. Approximate. Body
light shiny yellow, setae long, distinct, pale
brown, slightly smaller at tip. Intercalary
small, oblique but some normal, i-v, ii-
iv and in v, is very small. Setae pink
with 2 annulations. Later got a more
yellow sd stripe. Endow it is

Nadotis gibbosa. (Put it out)

415-00

2244

392151

Spent (800)

	1890	min up along midrib from near base and back side
Set. 1	Peaches ^{.30} bread ^{.15} groats ^{.19} flour, do not	
" "	Chops ^{.35} Groc. ^{.12} with the beef a little as above	
" 2	Syrup ^{.25} milk ^{.40} rice ^{.10} meat ^{.33} Peaches Bread ^{.06} with ^{.17}	
" 3	Butter ^{.30} chops ^{.28} no sugar ^{.15} above ^{.73}	
" " Cake ^{.10}	Hd large flat with ^{.10} dry yeast mouth	
" 4	Paper chocolate ^{.06} stockings ^{.29} cake ^{.06} 367	
	Bananas ^{.10} Writing paper ^{.14} not with	24
	Braids ^{.04} Pine ^{.10} Book ^{.3.00} 3 equal	
	Paperei ^{.20} Laundry ^{.86} carfare ^{.00} equal, 666	
	Peaches meat ^{.50} bread ^{.40} rice ^{.40} Bakery ^{.20} 238	
" 5	Harry ^{.04} toaster ^{.10} bread ^{.14} green	
" 6	Bellows ^{.10} from Bird for beer ^{.10}	
" 6	Wet works hd. clothes, etc. ^{.00}	
" " Chocolate ^{.02}		02
" 7	Fried Tomatoes ^{.12} cake ^{.09}	60
" 8	Pie ^{.11} carfare ^{.20} Dishes ^{.148}	179
	Biscuits ^{.30} Meat ^{.20}	53
	Paper carfare ^{.10}	13
		2244

Oct 8th 1890 Brought forward \$392 56

~~Ext~~ nocturnid on beach plum Belpoint L.I. June 9
1899. Ht 4 gen. shagreen, a little mottled with
white, slightly bilobed. Body about equal
12 root enlarg., 13 small & tapering. Feet equal.
Green, mottled dotted with white, whitish
a dorsal band. A sharp, distinct, rather
narrow (= width of 0) subterminal yellow
line, below all 0, gone very below 0 12
from 2 ant. to anal foot at end. Sprinkle
black. Fairly large of a mottled d. line
with less but not differentiated from the
other mottling, in white in the mottling
is below spinal, opp. lowe corner on 10. Setae
minute. Labrum jaws & antennae whitish
yellow black. Very sluggish. No shield.

Wilkwood Jan 10 " dead 392 56

~~4165~~
\$ 350 91

~~Paid (809)~~

Oct. 20. 1908. Great Lakes. Then wide sea separated lobes rather full, touching centrally, chin down the sagittal plane. 2nd - 5th	
2 & 3 wide, strongly, 5 & 6 slightly equal 40 width 14 mm. Dorsal with a vertical plate notched at mid. The 2 lobes round and slightly rounded. Vertebral part 6. 25 vents. Bill flat, roughened with pain, cir- cular areas representing the test. Abst. without dorsal. Fins with pointed 40	
7-10 with a small elliptical white patch, ¹⁰ Cayenne Book 12, with a small paine ¹⁰ Kidney House Trap Poachie ³⁰ Use Knob, dull. Grapes ¹⁰ each scattered densely ⁴⁰ vertically. Body scattered densely	
Clifford with a bright yellow part 79 small 4 spicel pattern. Much stiff pointed. ¹⁰ Check to Simpson very small. Ocelli not 13 seen Cayenne Meat ²⁰ Chocolate ⁰¹ 26	
ring 10 broken; no shields. Dorsal tubercles 44 ¹⁴ Fish 44 44 & sole apparently 125 observed in pointed areas, but 5 ¹⁰ Baitbridge & Rattling cathe. 133	
Yolk larvae as 10. 30 Oatmeal Glutens ¹⁰ 100 above 5-5. various views as they are upside down & mix shows clear points paired in 3 & 4 ¹⁰ 12, single ¹⁰ long in 7-10 with a longitudinal elliptical one in 13. Suspender Gasteria Bananae ⁰⁰ 10 115	
Comfit ³⁰ Nail brush ³⁰ Meat ³² 837	
	\$ 41 65

~~Prec 743~~

Fat green nocturnal on white oak, Belfast
Y. D. game 9 B 1899 Hd 4 ft long lobed spears
the green. Body robust, 13 small, fat equal
whitish green, clear, not mottled, a straight
pole yellow d. line, a little wrinkly edged,
iii pole yellow a narrow, slight waved, 3
line nearly broken sd line. A similar serie
of oblique line a lat space from ant. before
iii upward slanting wai iii to post edge of
seg. below sd line - a similar subslab line,
equally narrow and broken in the slight
annular incisure (3 i.e. segs forming 4 annulata)
but a 12-13 becoming broad and straight and
running to anal plate which it borders
narrowly, just below spiracles, considerably
below 12. It at middle o or alive, on $11\frac{1}{2}$ to v
Hd. larger than 2 but not retracted. ~~48~~
obsolete. Sluggish larva. ~~dead~~ 306 69

to the feet
that strongly and
on 7-10 without
webbs

~~90 (81)~~

slimy slender flattened body with strong
minnow-like movement. Head round, front above
bare as side at 5. Two barbs very slightly raised
projecting at the sides. Mouth small, 5-10
large犬歯 teeth repeat, 11-13 tapering 21
small 鳃孔. On 2 a "graduated shield"
exposed at sides, the two angles produced
laterally like curved horns; a dorsal and 5
vertical rows of black spots 3-13, those of
3 & 4 small, the middle one being with the
size of the segment. Gills 25-27. Head black
extending from mouth was dark. Head black.
 " Bananas Brand 23
 Set of black list. 1 doz & 11
 " Dress goods pattern 10.38 50
 in first part of egg; 11 distinct
 Lining 5, 11 in leg. all minnow 77
 " 22 Gaffari dark shiny except a large
 white spot on the spot
 Gills 40 100
 " 23 Gaffari tail Music, slate black 72
 Mouth wide 100
 Mouth wide 100
 C. g. 100
 Gills 40
 Gills 40
 which are approximately 1.25 mm. long and fed on
 9, 10 & 13, the very thin fish. feed on 7-8, 6-3 but
 over, pair of them. 4 carps about 400 gm a piece 3
 white cover on a bed. 5.00
 Harry's pants Test 12.00
 Gold Blast flour Baking 3.00 241 50
 \$44.22

Received

~~Doherty B 15218 Phedonokana variegata~~

at light. egg June 9 1899 ^{scarcely} flattened, less than
hemispherical, the apex ~~a little~~ pointed, smooth
with only faint traces of vertical ribs seen
around the margin in certain lights. Pale
yellow, somewhat translucent D. S height. 3
(Egg infertile)

802.

~~i.e. Gasterostic
It has a point
No recti.~~

Tanna Head rounded, prominent, the labrum a broad
over broad to base with small spinules and palpi at
tip. Labrum moderate, so broad that extending to vertex and
not narrowing; lobes full; no large colobus ocellum. A
few rudimentary setae. translucent yellowish w. 3 t
ds piece (barely visible?) each side base of Δ above labrum.
Body flattens moderately, round, tapering much
behind, not before; seg. smooth from 2 ~~10~~ ~~8~~ ~~3~~
bd. with rudimentary setae on hind ~~10~~ ~~8~~ ~~3~~
3 still wider (in side fairly distinct as 3 & 1) - 4-10 almost
equal, 11 smaller, 12 still smaller 13 very slender
divided by a strong suture. No plate ~~2~~ ~~5~~ ~~9~~ ~~7~~ ~~6~~
setae on abdomen. Skin finely granular, not
annulations creased. Tho. fat absent, replaced
by 3 pair of circular smooth plates. And few
rep. by narrow concave ellipses ~~containing~~ from
opercules on joints 6-10 and a terminal median
patch on 13 post. with a seta on either side.
Skin as above. Cola translucent whitish with a
yellow tint. No setae except a throat and
14.

" " Chuck to Steffens

~~1659~~
~~4693~~
6352

Gonodoritis hypocharia ^{BS}
(Described Ent. News. I, 61)

Received 195

B
Persimmon
Pattie II
Aug 12 '99

~~Eggs by W. F. O. 15221 found 10-11-1899 shiny 17
greenish white, opaque. Regularly elliptical from
upper aspect, are end depressed wedge shaped
from side aspect the other end obscuring broad
the truncation more sharply rounded and
consisting of a slight flattening. Surface nearly
hexagonally reticulate, the reticulations distinct
and raised very narrow but with rounded tubercles
at the angles as large as the diameter of the cell
areas. In the shiny side the tubercles are dark pink
on the dark side and on the edge near plain protruding
makes a handsome egg. All round, no angles. $.8 \times .6 \times .5$ mm
laid on bottom of temple was 15 turned opaque pink~~

would not touch oak. Ate persimmon.
Shed skin 27 Abd. 5" wide, thin, flat, few, dark like shallows
ribbed, red brown, spotted with white, 4 spot in front,
coppery brown surface, pale 2 spots on the narrow sides.
Coppery brown surface, pale 2 spots on the narrow sides.
body elongated as before. 3d skin blunt processes on
5-9 the legs, slender irregular, centrally with red brown,
connected by a number of longitudinal brown lines; with
space, broadly between, spotted with many small
bright white spots. 8-13 the dorsal rows pedomorphous
and the big marks are fainter, being absent. 10-15. Those
are dark above, feet pale. Abd. fat dark. Brown variegated
stripes rather distinct. Later the brown color gets

and only the last processes (which are nearly post-sty) remain dark.

Cale. .35 .58 .96 (1.3) 1.6 (2.0) 2.67 rats $\frac{6}{10}$ (8)
 44 .6 1.0 1.4 1.7 2.2

Sept 25 1899
 Received 462718 Glouc IX

Eggs by Cooper 15223 and 15224 June 8-12 1899
 Brookhaven L.I. (did not lay the first night after taken)
 Elliptical narrowing a little at one end and smooth
 truncated at the other shining dark bluish green. The
 truncal surface is distinctly limited as a little
 bulging centrally. Surface neatly reticulated in
 rounded areas, the reticulation not shiny, not elevated
 size .8 x .6 x .5 mm. Egg laid in crevices of trunks
 also under paper lying on bottom soil between evergreen. Entire
 laid in crevices of bark in nature. June 13 gray-green, later
 faded pink

Hatched June 22 white, shiny and 10-13 mm long
 and ciliated bands 4-5 dark red brown, 1st band
 red, dark brown, mouth region a little paler but
 setae short, stiff pale, from minute dark tubercles
 Body smooth, no projection. The hair or thorax
 is a slight shading, on 10-13 in d. and bands.
 feet pale. On longitudinal bands on central
 portion a very faint blonde brown lateral line
 connecting the bands. The scales or thorax and 10-13 are
 in the form of faint trans. bands. very crazy but finely
 and apparently divided by either on the sharp end points of black or
 short pale Hd. 6 white, a little reddish; eyes, black
 body all opaque white, a little glossy, no spots
 except a few tiny dark brown specks subdorsally
 centrally on the segments. In some this 43rd of
 slender sd line with a few dots besides.
 slender with blackish at bases and sides 145th 16
 subdorsal brown; segs rather finely annulated. Setae
 short and pale.

Found more hds. 6 on black e white oak, Bellport July 15
 This shd July 15 Hd 1.0 Same Hd white with many small
 brown black specks, thicker at 6th post and anterior 7th,
 black specks, higher & wider than 2. Body pale gray in
 ciliated tubercles, higher & wider than 2. Body pale gray in
 ciliated tubercles, higher & wider than 2. Body pale gray in
 several whitish line and species black speckled.
 tubercles 1st & 2nd, small sd black post. on ap., spine
 scales gray broken line and median ventral claspers are
 the position & these speckles. Post 10 and sides of

thorax dark black. Head pale. Mouth with black
 marked. Setae obscure, pink. (very crazy & confusing)
 Aug 31 Hd 1.67 Hd 2.00 silver, pale 13
 pale yellow from fading mostly with red brown
 the tubercles almost black. Body rather elongate,
 smooth, pale greenish yellow, faintly
 longitudinal stripes. Body pinkish yellow
 mouth black, overcast 20° with black
 black lizard post. pinkish brown numerous. Edge
 fine with dark blue markings & a little tinted
 down the edges. More black than others
 thus 20th Aug 18 Hds 1.0, 1.4, 1.6 thin pinkish
 22nd pale
 Aug 18 the original shed. New hd 1.6 mm
 of 14th surface dotted in patches with gray
 black & white 1.0 black. Body greenish white
 pale blue tinged with black pinkish blue
 marked with brownish and gray as before
 23rd black, octopodal & broadly colored 15
 Aug 27 Hds 1.75 1.75 1.4 (6th). Of this day was the
 26th same brown, however sd line with
 per striae becoming 1.00 thick grey 1.0. The other 3 pale
 black all whitish with the flesh darker & grey
 27th all whitish with the flesh darker & grey
 sd in later 1.00 & 1.00 thick grey 1.00 and in sd
 pale blue 1.00 & 1.00 thick grey 1.00 and in sd
 pale blue 1.00 & 1.00 thick grey 1.00
 28th pale blue 1.00 & 1.00 thick grey 1.00 and in sd
 pale blue 1.00 & 1.00 thick grey 1.00 and in sd
 pale blue 1.00 & 1.00 thick grey 1.00
 left 1 Hd 2.2, 1.75 1.75 1.75
 29th 4mm 1.3 somewhat depressed. White fine
 black 1.00 & 1.00 marked depression. White fine
 black 1.00 & 1.00 markings over the lobes, tubercles represented
 white spots. Body smooth, uniform, colored as
 before. Stockings 73.
 Spine Oct 2 a slight net between leaves on the
 ground Check to Tiffins for Nor. 1468

. Therina atlantica var. (Hab 5)

" " " Simplicornis 119

4371

3012

Clytola morbida is Suedia

Dec 19 1905 747 = 664

Egg laid by Deltoid 15220 ~~Ctenophora undulata~~
from Brookhaven Woods June 12-13, 1899 (Did not lay first
the night) Hemispherical, eggs rounded made a little
smooth shiny, regularly reticulate, the ret. small
and not conspicuous. Transparent, watery. A little yellow
the yolk granules distinct and giving an opaque look.
Diameter .6 mm. Yolk on side of glass separate.
Hatched June 17 P.M. Little colorless semi-tubes Hd slightly bilobed
colorless mouth from ocelli black. W. 2 mm. Ocelli 6, 4 in a
semicircle above & below in a pair. Setae colorless, simple. Body
whitish colorless, shiny, feet on 7-8 a little smaller than
9-10, the feet long, rather coarse, very min-
utely bilobed, tipped, normal, subterminal absent.
Intervals come somewhat forward but concolorous & obscure.
Part of the bars curve forward. No shields visible. At the
ate dead leaves and made a fine web about themselves
Tubes tubercles small, round, black. Hd. C. d. I anal plate
brown, ~~slightly~~ cornified. Body colorless, transparent
~~shed~~ June 22 Hd almost 9. And did brownish white not shiny
ocelli dark setae pale. Body oblique flattened. ~~14~~ ¹⁶ Setae
sided white, 12 a triple tubed. Tubercles small brown
normal. Feet of 7-8 small. Shields not cornified &
concolorous with body thin tubercles also ~~thin~~ ⁵ ~~3~~ ⁹ ~~8~~
setae increasing slightly fibrous. 17 below spiracle
and ~~14~~ ¹⁴ 29 Hd. 6 and, pale yellowish brown, dotted ~~reticulated~~ ⁸
with dark brown. Body dark sided yellowish brown fine
dotted reticulate with red brown, forming forming a dorsal
line and having spaces around the small blackish
tubercles. Shields not cornified. Feet equal. Setae pale small
June 23 Hd 1. pale brown, smooth, very obscure fine ret.
body like 644 II but each hair shaggy. Works obscure.
(V664 "all leaf brown yellow ground finely reticulate
with dark red brown irregularly, the only
mark a faint brown dorsal line. Tubercles
small, black, setae inconspicuous VI & VII
white, coarse")

~~white, warmer~~)
♂ 9.14 ± Hd pale blue, fine dotted scattered
in mouth above S and vertical streak faintly or distinct.
Lined. Body somewhat flatter & being elongated in
sur region shields and compressed maxilla. Pct
on sides indicate a waved sd line.

Sacculina eating a little April 5, 1900 grass as well as dried leaves. Three parasitized May 1. Scattered ~~at~~ ⁱⁿ Spring. It has four large 1.8 mm. Other small buds 2-1. Parasites delicate with white leaves

① Sept 13rd 1899

Received

Spec. 25 Bivalve for Neopatella or a high, wide lanceolate. Shells placed in a bunch, wide leaves. Shells placed in a bunch of 25 or more or width of head. A conical tail into a widens top, round flat; base flat. Micropyle are a little elevated, circular, partly retreated, and the air area covering the rest of the top surface completely retreated, the cell areas strongly smoothened; Sides finely ridged, 40 or over the ridges not decreasing in number except just at the top, divided into quadrangle areas by fine cross striae. D.5 In hatching the lateral cut off a cap and the water which is left intact with the rest of the shell. Shells very thin so that some have collapsed, white.
Hd.25 rounded hillock colorless eye blots, around base body colorless, body green. Body, a base flat, with 11 12 enlarged, irr and plate small and not color through blotched with color. Eye lids wide, rather hairy, sy 2 united. Tubercles green, slight cone, pointed blackish. Setae length 2-2.2, colorless on the long, not seen. ir well separated, set normal, perfect, equal, slender.
Hd.6 Hd.1 body pale greenish yellow, base 40.5, hatched, colorless, color dusky, Vi present. 2 a little collars, 11-12 slight enlarged at the ends, tubercles conic (rather large), no blotches, no essential change from 1.
Hd.4 Same tubercles as last dusky. Set equal.
Hd.9 or 10 rounded spots own not shiny, tubercles black, spots eye lids horn yellow horn horn. Interval i, 15 slightly black, ii, iv v (which are smooth in him 5-7) ii an up pal colorless with body. Ir plates are shiny, ii disturb other conical blades less. At the ends own of the tubercles one black in 2 slightly greenish color, on 11-13 ji and on 12 ii also which is the only separated from the thing still in line with ii. Open transversely, blood palms green and

(Please remember to return and settle)

~~Aug 30 1849~~ Two more out Aug 10 ~~1849~~ 11

.3 .5 .84 1.4 $\frac{1}{10}$

Wool Scans VII

B. 251

4 little ~~homalid~~^{egg} on jewel rock. Clear
bridge rd. May 1899. ~~yellowish~~^{yellow}, thin
and slightly truncate but rounded; from side
view somewhat wedge-shaped, then thinner and
the thicker. Surface covered with flattened, elongated
hexagonal cell areas, making it a many-faced
polyhedron. The areas joined at all angles.
 $7 \times 5.5 \times .3$ mm.

Hatch 2-5 ate jewel weed & rice. Slender, cylindrical
colored to tan-pink, front dark green. Hd. now orbited
by black mouth brood. W. 3: has translucent rim shields
perceptible - scales short and fine, obscure, faint. In
the skin skin slightly shiny. Scales slightly rounded
the interspaces at the sides and meeting over head.
gills Hd. 6+ pale reddish in back, purple brown. Back
purple, original shiny, transparent, all dark green
area tan pink, natural line white no markings but one
faint blue patch or stain like an fin and small
blue side colorless.

Shaggy fly Rd 14 mounted; apex under 2 transverse lines
and black hair to apex of each lobe before occlus. Body
very pale ochreous brown streaked with irregular
oblongs of brown-black. A narrow dorsal line; edged
by whitish addorsal; set whitish line edge above by
blots, a wavy sinuate lateral brown line; a few faint
vertical streaks and double white spot dorsally
a series of large patches on 6, 7, 8, and 9 Post. The
first is a spot on each side of line behind a widow
of that line; the rest have been marks created in
a V. the others are large patches extending between

Ant II, notches ~~opposite~~ behind. a heavy bar.
Spots a thorax and dorsal dot as underly
abdomen and edge 1 legs 6-9; a dark bar
II 10 up heavy slender beneath side 10-13
as a foot 1 10. 1st half of foot 12 a 6 scale
plate pale. Spine of 3rd leg ^{3.72} thick pale
setae fine pale. The ventral has 6 obscure
whitish transverse lines.

~~2 Oct 1899~~ 30 Oct 1899 130

"10 Pacific Red Brush Block". 171

Spots 70 Tickets - \$1.00
Auntie's tickets - \$1.00

Vesolena intermediata Verr
19 ~~descrips~~ - 1449

" " Date ~~Chasht Hesb~~ 8/10

and on *Pectinaria* which topped with *Pyrenula*
Tubercles small black, iii longer, it is
greenish. On other grasses *Pyrenula* is best
seen from the back part. It is very common
on *Chloris* and *Agrostis*. These two are
not common in a bright yellowish green
color.

Florrie Gable 150 160

40 42

~~Code .3 #1.59 .84 1.2 $\frac{2}{1.0}$~~

11 .27 .43 .72 1.2 $\frac{5}{10}$

~~Received 8/21/00~~ Sept 10/00

Franklin Park 15257 { 2nd 1899 letter 469.

Rounded elliptical flattened above below; we can
distinguish the other a } little narrower and broader
surface with flattish, very shiny, a many sided
polyhedron the cell are scarcely concave rounded
by several. Shining, pale greenish yellow. $6 \times 4 \times 3$ mm
Half of 98 rd which covered them, rock fine red
but smooth & a colored reddish, white & streaks, rock
dark and concentric tan brown. Surface, Setae obscure
are yellowish, the rest shiny pale green have all dark & rounded.
At rest stand under the rock, body covered in a spiral
like another soft leathery red. Body translucent, dark
green from red. Head $10-13$ body length. Rd. don't
~~but~~ 1622 Rd. 4 pointed slightly lobed with app 5, pale brown
and oblique hair stiff. Rd has slender cylindrical mouth full
of 4 projecting oral glands compound structures we get 1 and
not shiny translucent, 5 mm or dark brown ~~70 22~~
add. 3d) Setae small granulate tipped pale, brownish brown
moderate, 3rd ones green ap. obscure the dark ~~294~~ 47

Sept. 25 Ad. 6 pounds or } between the vertical streaks
composes of brown dots up } of each lobe; ocular blocks
translucent, slightly indented, green from the front
and 8d. greenish near border. Iris } trace of a stri-
line, distinct centre of a spot. The irides also brown
sheathed and 2-3 spots } the tubercles, giving a
superficial appearance } broken transverse bands.
base of maxillary teeth } Head in front. The foot
a pale brown. Feet pale grey round, and shiny
below a transverse very broad } and obscure, faint in which
step. Oct. 29 Ad. pale brown } being dotted with dark brown
a diffuse white stripe on the base of each lobe under-
lay color; apex of a brown. Eyes light green or ventral being
above external borders, and green. Ingrediens form.
Dorsum pale green with prominent dorsal whorl and 8d
with black lines separated by the 8d edges below by brown
sheathing, which are divided into apparently short
bands in the center of each lobe above and broken into
spots at the extremes, } also feet strongly band with
dark brown especially the fore 4-5 in length. Thw.
feet pale (at center) black. White stripes. Setae

Mrs. Theward 111-5
Spouse John W. and son ^{and stepson} David. Mrs. Theward 3 single daughters Mrs. ^{and stepdaughter} 70 2 25
Institute part 13 2nd life insurance
and other, moderate outfit (at 5 Park Ave same)

.38 .55 .76 1.08 1.54

~~3 ± .6 .8 1.0 1.2 1.6 1.85 2.2~~ ~~long~~

R 753-2619?? Sept 26, 1999

~~Leptesma~~ or ~~Brounella~~ ~~for~~ ~~and~~ ~~from~~ ~~at~~ ~~Regatta~~
July 15 1899. Probably one of the Thelina spp.
Eff. had a top of a pin needle like row of dark
tubercles, 3 above. Elliptical flattens above & below the
end nodes, a little rounded shape from side view,
which from beneath cut which shows a very
well marked. Surface pins reticulated. $9 \times .6$
Steep bed, 6 scat. noted, from block, a little rounded
with pale. End pale brown with longish dimid
dark brown lines distinct in a broad lateral band
leaving the dorsum brown pale and the 3x feet
dramatically go. varie independtly lined. Tubercles
11 oblique brown marked. Feet all brown
a pale sd line edges the brown above. Points
steads, smooth. Cut channels in the needles.
Hd. 8 whitish brown, a bright line in face & each
lobe, brown ong mainly in surface & on pale 29.7 22
light rounded green points brown lines with

the SA line must deviate. D-space crossed by TL at 5
add. lines; it is not contrasted. Lateral line faint,
consisting of about twelve solid line, a 225-3; /
dark opercular area a cr line; ventral slanting line
and with dark median-ventral patches. Feet pale.
A heavy dark red spotting on thumbs
Stomach Ad 1.0 mm thick whitish dotted with
red dots have a nippa band and a few dark have
dots at eye and opercular. Red pale bands have almost
whitish, finely brownish streaks. D-space with 3
pale lines and a whitish line; a red streaks dark
brown line with slight irregularments between and
dark spots; a narrow red line. Ventral line
below dorsal pale brown & whitish and a median ventral
series of large dark brown spots. Feet pale;

July 30 Hc 162 Hand, bluish pale pale greenish
tubercles on antennae marked with brown. Body
smooth uniform. Pale green which is pale
blue above, whitish dorsal space with faint
pale brown lining. Palpal organ somewhat
more distinct so, appearing darker and

giving the dorsum a blotchy look. Special c
for dark, ventrally faint markings like those on
~~the anterior~~⁹⁰ dorsal. 8d blackish 1.3 m
3.84. Feet pale. ~~Varied~~ Hd 1.3 all green & v. foliose
various brownish & greyish. ~~2210~~ 2265
Hd 3.1 Hd 2.6 grey & blue dull red streak a red
red feeding at black above, lower angle & cheek
yellowish. Palms purple. Red. Green. & v. foliose yellowish
~~various~~ ~~various~~ ~~various~~ ~~various~~ ~~various~~ ~~various~~ ~~various~~
fins. Venter & dorsal fins slightly tinged with
~~blackish~~ ~~blackish~~ ~~blackish~~ ~~blackish~~ ~~blackish~~ ~~blackish~~ ~~blackish~~
distinct, black; Intercar. flabellata, spiracle white
Dorsal dorsal side & venter shades in white
blue brown very between the lines being main
8d fins black & so here, the other markings
all of green.¹⁵

" "	Neckties	25	Shoes	65		700
" "	Microscope				<u>12.00</u>	
						45.75
					71.85	

Received

~~Feb 20th Bobt Beeept II. Jg 15 (Box 51a, Box 7)~~

Hd. 6 t. nose pale brown. Body pale brown, almost white, a very thin sd dark brown band leaves of a dorsal line and 5-6 fold pale; below a similar sd band leaves a reddish brown median ventral pale stripes. Feet pale with faint dark brown stripes. Under Hd. pale brown with black dot in tubercles & on sutures. Body fine minute pale ochreous brownish and brown, the dorsal clear, the lateral one being streaked with dark brown, lowest above a nearly continuous sd line. 5-6 pale pale. A 5-6 and ventral yellow brown line spirally dark, feet pale

Aug 11.0 Same dorsal faintly brown; tubercles black along a line of the left foot 1.0 long. Looks very like ~~3~~ ³ ~~7~~ ⁷ they Kobelle had in Fla. on live oak.

Spec No. 21 Hd 1.4 (Th hd 1.1) head white with 9 brown dots along midline, suture; back evenly black, yellowish white, dorsum finely lined with brown leaving a white saddle, pale with black spots; sides finely lined with brown black the bars irregularly confluent a giving a dark shade in general view, feet darker pale, the latter with central spot Aug 30 See no difference between this and 746

Shid Sept 12 Hd 2.1 Libes 746. Hd and slight bilobed
lips fees & high. Whitish, throat brown dotted,
tubercles as black spots. Body moderate, brownish
on flanks. Back brown in general view. Fin
area whitish; a sd line of this color splashed
with orange in incisures as in other fish, the post
and anal plate. Dorsum filled in with irregular
circular brown lines, the largest sd line
near black tubercles; ej; white, i; the largest
spot. Sides anteriorly brown, and then from
shoulder line are rows of black, separated just
below the pale sd line. Suborbital tubercles

were brownish, separated from the sandy soil
after the fire broke him! Winter found
him. I fed him pale spruce chaff.
Within the desired natural limits the
inscriptions appear again to 2746 and 2753.
They are abiding at ~~celeste~~³¹

shed Sept 25 Hd 2.2 (8400 ft 11.95) same but dark.
Had blotted, marking above higher & wider than 2
days ago by ³ 1/2 in. Lichen (now numerous. White
dots with brown shades in lower 2/3, turned
a gray black. Body smooth, uniform, smooth.
Was always applied to surface. Gray white
beams marked with darkish black lines and
long bladed white mold. So far distinct lines
in both dull red as ~~yellowish~~³² Daboll Space rather
dark. Felt with the fine irregular lines of the
variedreadis and between slight markings in
black fat of 20 minutes had some blackish
ink obscuring reddish hair and stony 1/2 & acute
pole, circled ³³ 1/2 in. ³⁴ 1/2 in. ³⁵ 1/2 in. ³⁶ 1/2 in. ³⁷ 1/2 in. ³⁸ 1/2 in.
So bold with lichen over him he is and
a double black ventral line meeting ³⁹ 1/2 in. ⁴⁰ 1/2 in.
posterior to anterior his back took his first
developed ⁴¹ Thru ⁴² 1/2 in. pale all. darkly outlined.
Spur is for a ⁴³ 1/2 in. ⁴⁴ 1/2 in. ⁴⁵ 1/2 in.

1	Wheat Buns	35
1	Chick to Habit	8 00
1	Fish Dressmaking	7 50
1	Pork Tickets	35
1	Express	40
		31 07

Front 35 50 7 1.6-2.2 2.8 3.9 7

and heavy (2-13) Cat 1586
also sand at ends.
velts high waves
for white stiff stuff
are broken & small
and have broken up. ~~7557~~ ~~6 Hd 3.9 (shd 2.8)~~
~~wholly broken.~~

Cadiz port B.J. 87 again (separated by 19 farts)
S. about 10° N. 100° W.

On Chestnut at Pitt Jefferson

On *Q. coccinea* & *Q. tinctoria* Brookhaven July 16
3 brackets on each side of large $\frac{1}{2}$, those on

Body overall, different both in contour & coloration
III. G. blist., slightly altered. Body translucent colored green
green and 3 high tubercles on each, i-th of body also has
but these are $\frac{2}{3}$ - $\frac{1}{2}$ as those of others. High tubercles yellow
setae green pale yellow with central & few other shorter
IV. G. Colles white, iiii. greenish yellow. Green
with high tubercles cream V, iiii of body high tubercles
conical, not cream. Body green from iiii iiii yellow
i. orange, base of white d. line and tubercles irregular so
translucent with orange yellow. Setae coarse, curved forward
from 2nd vent almost basal broad yellow. 39 88

Coll. 35 .50 .77 1.1 1.56 2.22 3.17 4.58 $\frac{7}{10}$
Coll. 2.18 2.9 3.9 $\frac{25}{100}$

Paid 56

Oaks & Galls 20⁰ 20⁰ 00⁰ I. July 1899.
Gemmiferous base good brownish 3-5-lobed
or almost round leaflets, and 3 or 4 gan-
gentle flatters or contrasting. 50

Thlaspi glaucum (L.) Benth. 2.1 Aug. 1913 Vase 2
Tubular flowers in whorls about base of 300 dm.
very stiff. Opposite leaves, petioles with brown. Cyl
tuberous thickened annual with org. hair; 130
leaves long pointed. Densely covered with pale setae, few
in crowded whorls along & approximate oblique.
fol. colorless green from top to tip, or veins
purple. Odor agreeable like violets. Length of blade 139.31.

Mon. 20 Borden 10' above the yellow sand.

11 Feb. 1 - In the bushes all day except for another short
rest. Doves crowded on Broad-leaved Red Maple. Saw two
of the latter and up the trees kept flying. Then two

782.5. Tuberations single, raised, conic, smooth, off-white
to cream, 6-8 mm. diam., brownish-yellow. Soil transient
or semi-permanent, rather damp, often d. so. L. 6.5 ft. H. 3 ft.
Roots in narrow leaf, fibrous. Flowers few
accompanied by red, pink like 753. But d. of 3 July 8
in white yellowish wash or herself, flower and root
color pale less bright by contrasted
783.9 (711b) Tuberous all single, short, button, not
cone. Color same, rather dull.

.32 .40 .50 .61 .77 .96 1.2 wt $\frac{2}{10}$

Eutropis pupula (H.) C Dec²
Received 1899

سی و هشت

~~Wards for Peppergrass seeds kept at \$10.00 per~~

1899. Singh at the beach, covering the beach got
a loose fine web and eating out the seeds in
the pods forming tree holes in each pod.

Stems green, the rags faintly banded with yellow and yellowish orange; a dull crimson
d. a large patch on the yellow faints at the
ends or ~~is~~ ^{is} touched with dull crimson.

~~Recently had Cedar waxwing T.D. was a bird~~

ocelli black. IV + V orange. Movement 5-15-532.
Wd faint yellow. Scler long slender drooping - v.

No. 8 Do not faint - yellowish faint & reservation 90⁵ 46⁵
with red streaks before
and being destroyed by sun in summer. 986

~~Id 4 pale testacean. Body all green~~

Hd 1.2 Eyes brown mounted on lobes; ocelli black
body green, snout pale margins whitened, dorsal seg.
Muds in 2-14 } dorsal cleft reaching sn. fold,
anteriorly broken, projecting a little before at

Spirella, setae fine, dusky, rather long,
(another 6 green and fair sd + 8X pale bluish
separately from the dusky ones)
The other 2 sets of spines

Clark 809 R 1899 Cat No 15273-5

Lepidoptera 15264

Malacothrix glauca of 1799, Gaedt figured loose
in number of the around like sand. Elliptic & not
flattened & less diverse & more brittle but
not rounded. One very slight the greater (magenta)
Petiole large. One of the largest & the 6th of the
strongly ~~flexuous~~ rigid. It held with the long
and curved wings straighter than 230°
the rest being downy. The wings were edges
which are more equal than across this ex-
cept that the ~~meto~~ are alternating 230° or 240° with
white points & obscure veins not clear enough
to prove them. But the fine magenta
bright bluish green later dark red
~~Widest part of the body~~ base wrapped slightly back
wrinkled in a few brown black cells and with
whitish on the face of 2-3 in body rather short but
was slender back long at all and anal fl. large but
and strongly wrinkled. Body white a broad band
of purple brown stripe, obsolete in 6th, then
joined basally 10-13 and becoming narrow 1/3 fm.
on anal fl. A broad ventral stripe of color band
absent on egg white feet and narrow tinge of the
bases. Tarsi pale. Legs green yellow with a faint
smell of camphor which affects and feet long and
slightly tinged. 1/10 yard in his wings; it will take a
open space well balanced Government 350°
+ below 11. It absent 2 after 7th well separate in a V angle
VII is ventral dark band. On those sublunum absent 3-5
a very long narrow yellow 10-13 and out to large tubercles
at white angle is performed of 1-2 mm. 1/2 apically
longitudinal 45° rounded and pointed and
projecting a small angle, pale above, sublunum
above very numerous with few magenta scattered
bands. 11 and 3rd feet. Body cylindrical moderate
thinner easily suppressed. Whitish green on the sides, a
broad purple brown band, the four wings & into a band
10-13, a thin oblique gerinate and distinct 3 or 4
borders a 6th. A broad ventral stripe of dark color
covering all the feet except a lateral aspect
and the 6th which will have both bands

(Skull) Body smooth, no bumps, nostril the feet flat & apparent. Back brown longitudinal lines. Transverse small dashes, shiny elevated black. After that black. C. d. and pale and by dried colors like very hot sun's rays. Iris smooth, (see before) dotted with dark brown on the face in 3 irregular

~~Upper back, 1st year, 2 May 8, 3rd year after
seen at Bristow Park, 6~~
green, a 8d dark brown band granulated and
discrete above becoming a broad st band with
a single slender vertical stripe. Test pale yellow.
~~Sept 14~~ Hd. of obscure pale brownish dotted with dark
brown spots distibuted in a vertical stripe on the lobes
Rind, and hillock moderate and sunken. Rocky
moderately glaucous smooth obscure grayish green,
the double row joining behind and ~~overlaid~~ (overlaid)
as before but grayish brown now contrasting and
all thick obscure longish dullish brown with
whitish [not red dots in turnicle dots]
015 hibernates in turnicle still alive Jan. 6 1900.

1015 hibernating in tumble still alive Jan. 6 1900.

alive will not eat Apr 30, 1903 Hol 1, 2 flattened bald
and flat, round & square at corners, on surface depressed,
and have large & curious inwart: gray colored about 2
inches to $\frac{2}{3}$, Cylindrically streaked on sides & lobes tip
of anterior dark color. Body slender, somewhat flattened
smooth; on shields and flat conical with a ~~cross~~ star-
shaped each side of; wings large contiguous, gray,
oblong, longitudinal, striped. Broad dark red ~~red~~ stripe
lives on a light green below which are two additional
lat. & suprastig, 2 lines 5 + 4 + 2 line. Tubercles small
black not elevated. Spindle black ringed ~~but gray~~
(but in Feb or March I think) ate mostly meat 110256

shot off 9 at 17' flatten square, apex under 119286
back from, 3 pale, 3 radial straight white stripes, the
last above the are a lot. & thinner & very 7680
modest, cylindrical smooth reddish brown fine lined
with black & a yellowish white spot by mid. twice 40
brown specks where blotches apparently. Line are green to
d. reddish double curved & blackish last space 65
spade red with whitish line. 3 subcavated upper

Spade red with blackish lines; 3 subcircular orange
stig. black lines & diffuse line S-V. aged female ~~42~~⁴⁰,
3 broad black, the central, the last segment red-v.
The first 2 antennae white gray. Abdomen ~~black~~^{black}
rotated. spiracles white black rimmed.
Flight 30 sec.

~~Shad May 16 Hd 2.2 Flat & belly not flat. square~~ ~~4. Qpx 3rd tail~~
2, anterior large, posterior curved inward like claws
gray, a white band, peppered with black & brown,
heavy streaks on the side with dark as before

Wm Wm Scam VII

35 11 150° side 59 = 67 (Sept 1899)

Habenaria sparsiflora (L.) Ehrh. (Hydria umbellata)
laid in the still water 4 hours deep. The
upper ~~Leptoleucine~~ ¹⁰ ~~Leptoleucine~~ part on one side all edges
equal. ¹⁰ See 6th figure. Below finely gray to gray
blotched ~~Leptoleucine~~ ¹⁰ strongly flattened above, below
and ¹⁰ back on the side by appression, ends rounded,
the two round lobes ¹⁰ each of which a little de-
pressed, some tufts. Pet. flattened, very narrow,
very long ¹⁰ ~~long~~ ¹⁰ flattening the net. width
not web fibrous. ¹⁰ 6 x 4 2.3 mm.

" 2 Gaffar and open a silly wet geyser
Hatched ⁰⁰ 35 and open a silly wet geyser
3, 3 like the apex of leaf had pale yellow ocelli
black and, above white red orange, w 3 ± m
long, anthers black and elongate, pale ⁰⁰ 30 sp.
obcon bellus pale yellow, whitish and, bracts
dark brown - Bilbucan bilbucan ²/₁ ² sp.
spined with conical ¹/₁ ¹ 5 foliolous then the bracts after
from Hockeng elbow body oval flap low
and h ⁰⁰ 1 ²⁰ Tubular ²⁰ spike vi short
1 " Gaffar Tickets Jardines orange ⁰⁰ 5
N 09 all yellow, olive, orange 00 5.

" " 2 nov 1909 (see p. 10) Well-tracked trail long steep
down hill, about 1000' long, 64° a south west
slope of Red Pine, red pine stems mostly dry

1. *N. leptocephala* var. *leptocephala* (L.) Kuntze
Body 10-11 mm. long, slender, elongated reddish orange
yellow, back blackish brown, belly flattened, paler
d. G. 8d broad, strong white bands with well
marked obscure horizontal lines. The scales all undivided
into whitish velvety spots 2.0-2.5 mm. apart. Blotches (g.
not seen) 2.5-3 mm. apart. Dorsal papillae small and
large by groups blocks 3.85 mm. apart pale, 11-15 black

~~Shore of Sheldone's Brilliant Ridge which is at 4 mi 5.6 mi
and 10000' above sea level, took 5 species from 50 ft.
depth to 10000' depth found a live or dead fish
dead fish left after release in 35° water~~

bank & Check to Mrs. Chapman and
by a sum Check to Mrs. Snow at time 35⁶⁵
bill of Check to Mrs. Shepard 21⁰⁰
amount 177.46 70⁵⁴

Black wings. Received large meal by
André des Moulins. Got red like bowl. Red
on the lateral groove. Tubercles black.
Moderate, often ~~elliptic~~^{elliptic} long, fine pale. 59
July 22 in ground Borrowed. Ph. Pack.

"120 It seems to me that the name in Europe
Calocampe undulata Linnaeus 1000
is well known, from ~~Piloback~~ figures 95-96
described and agreed (see Hofmann Rep.
Am. Edm. 1st p 230). The American
Lew Wallace described as by Osten
(14th Rep. Am. N.Y. p 355). On larva
I find decided in habits, coloration and
food plants from the European one, so
that it seems reasonable to suppose
be the same species. Newman says
the European with long the eggs widely
and least never adjoining each other 94
the larvae are not decidedly gregarious
and Hofmann does not contradict this.
The European larva has a brown 95-96
and is brown above, yellow below forming
two white bands and with a white
oblique line. The food plant is willow.
The following description with this was
furnished on larvae, differs.

~~The small green things except with
which~~

Ant June 2 1900 As No 15907

another egg with these had longitudinal sharp ridges from
the lower hemisphere striking the ridge nearly straight, and
rest in one or 2 places. Both. This is the real egg!

Score x 1X
Sweety arrived at 760 (see 905) ~~see 905~~

Calc. .275 .39 .56 .80 1.14 1.63 $\frac{7}{10}$
 Iron 3 4 .55 .6 1.15 nothing a car
 May, 1900

Later a large black ~~Pachysphinx~~ sphinx just 3/4
 out of pupal case, receiving side and front
 the dorsal ~~Posterior~~ ^{Posterior} part being
 pale yellowish, others uniform brown and
 annulated. The few dark brown dots obscure.
 Shot of 1/4 Hd. 9 from above, smooth, elongated
 with central white hair a little flecked
 with brown. Body slender long, smooth the legs
 finely annulated. Pale tan-yellow from the top
 with small brown and darker area in curves. Ventre
 heavily shaded with dark brown and so pale
 but leaving the feet entirely pale! marks existing
 as at end of last stage. Tarsals and the ventral
 ones pale. (This not done in tumbler Oct 1) Eat again
 first in Apr 30 1900 Hd about 1/2 of the time alive!
 May 9 Hd 1.1 rounded, rather wavy lobes, each on
 all brown flecked, a broad diffuse band on each 2 4-3 3
 in center and longer one up each lobe before each
 vertex. And ~~Opposition~~ brown. Break Shredder 28
 verbally 9-13, feet pale outside. Seg. + 36 annulate
 a trace of brown on seg. 24-61
 flecked area increases, but first on seg. 4 flecked
 broken. Spots brown, in a low shield shape
 more distinct 5-6. Tarsale annulus; setae short black
 shot May 17 Hd 1.6 somewhat square around feet; white
 gray hair mostly a few diffuse mouth dark stripes
 from behind ocelli are a short one each side in center
 legs 28+ annulate cylindrical uniform slender, well
 drawn out. and feet projects out, flat and small
 at end, shield all concolor. Most brown, above d. 3-12
 a diffuse red brown d. line receding a bluish white bar
 in the large annulus). Black curved abdominal dots and
 a post a cost seg. on but a little more lateral & a little
 oblique, a diffuse, sparse fulvulent black slj. on
 shading; heaviest & every now & ventral 8-10 but
 leaving post 10 external pale. Ventral sparse black
 irregular. The feet pale. Spots black. Tub & setae white
 One I gave 2 1900

April 6 1900
 Pachy 61

Updated May 1900 (See Projected Cut in 15272)
 May 9-10 1900 eat 1/2 round, white the base flat
 and concave centrally, white as the 1/2

 pale on one side of the base, tipped at an angle.
 Only slightly convex than the white near apical
 surface polished, the cold areas feathered
 roundly brownish, reddish brown, becoming raised, greater
 small, surface slightly irregular. D. 7 mm. Eggs laid
 in lines, separated 1 mm. 83
 Hd 1.8-2.0 Hd pointed tip, 3 moderate
 1/2 elongated over middle patch on back 95
 and 1/2 by 1/2. 6.9 after 100 great 33 before
 May 10 Hd 1.9 ~~black~~ ^{black} ~~brown~~ ^{brown} ~~yellow~~ ^{yellow} ~~white~~ ^{white} 11
 uniform segment 1.674 marked feet narrow
 with black tips 1.674 round white brown
 pale transparent, heavy body 1.54
 211 ~~Flammea~~ ^{3.6%} ~~Reaching~~ ¹⁸⁰ 540
 " 94 42 ²⁰ 156
 " " ~~Raffae~~ ^{Flowers} 1.05 1.05
 " Meat ⁸² ~~Cafare~~ ^{Cambrie} 42
 " 22 Meat ⁸³ ~~Huf~~ ^{1.25} 58
 " " ^{2.00} ⁴⁰ ^{.10} ^{1.00} ⁵⁰ ^{1.00}
 " of color Express ^{2.00} ⁴⁰ ^{.10} ^{1.00} ⁵⁰ ^{1.00}
 " " ²⁵ ^{1.25} ^{1.25} ^{1.25} ^{1.25} ^{1.25}
 and just 11 weeks. All single, no other manner
 or add. absent 5-9 a trace in 10, small 24 61
 11 and 12 1.12-1.13 very long, black white & blue in
~~Quadrat~~ ^{Deficit} ⁵⁸
 " " ^{2.00} ^{.10} ^{1.00} ⁵⁰ ^{1.00}
 May 25 Hd 1.4 round lobes, mouth square produced
 7 mm, but whitish, below, of it below vertex each lobe
 has 2 sides & on eyes black. Body spiracles, a little
 transverse, whitish translucent but dusky grayish
 on body. Legs slender brownish white each leg, pale
 triangular form, ii single ^{1.12} ^{1.13} ^{1.14} ^{1.15} ^{1.16}
 and ^{1.17} ^{1.18} ^{1.19} ^{1.20} ^{1.21} ^{1.22} ^{1.23} ^{1.24} ^{1.25} ^{1.26} ^{1.27} ^{1.28} ^{1.29} ^{1.30} ^{1.31} ^{1.32} ^{1.33} ^{1.34} ^{1.35} ^{1.36} ^{1.37} ^{1.38} ^{1.39} ^{1.40} ^{1.41} ^{1.42} ^{1.43} ^{1.44} ^{1.45} ^{1.46} ^{1.47} ^{1.48} ^{1.49} ^{1.50} ^{1.51} ^{1.52} ^{1.53} ^{1.54} ^{1.55} ^{1.56} ^{1.57} ^{1.58} ^{1.59} ^{1.60} ^{1.61} ^{1.62} ^{1.63} ^{1.64} ^{1.65} ^{1.66} ^{1.67} ^{1.68} ^{1.69} ^{1.70} ^{1.71} ^{1.72} ^{1.73} ^{1.74} ^{1.75} ^{1.76} ^{1.77} ^{1.78} ^{1.79} ^{1.80} ^{1.81} ^{1.82} ^{1.83} ^{1.84} ^{1.85} ^{1.86} ^{1.87} ^{1.88} ^{1.89} ^{1.90} ^{1.91} ^{1.92} ^{1.93} ^{1.94} ^{1.95} ^{1.96} ^{1.97} ^{1.98} ^{1.99} ^{1.00} ^{1.01} ^{1.02} ^{1.03} ^{1.04} ^{1.05} ^{1.06} ^{1.07} ^{1.08} ^{1.09} ^{1.10} ^{1.11} ^{1.12} ^{1.13} ^{1.14} ^{1.15} ^{1.16} ^{1.17} ^{1.18} ^{1.19} ^{1.20} ^{1.21} ^{1.22} ^{1.23} ^{1.24} ^{1.25} ^{1.26} ^{1.27} ^{1.28} ^{1.29} ^{1.30} ^{1.31} ^{1.32} ^{1.33} ^{1.34} ^{1.35} ^{1.36} ^{1.37} ^{1.38} ^{1.39} ^{1.40} ^{1.41} ^{1.42} ^{1.43} ^{1.44} ^{1.45} ^{1.46} ^{1.47} ^{1.48} ^{1.49} ^{1.50} ^{1.51} ^{1.52} ^{1.53} ^{1.54} ^{1.55} ^{1.56} ^{1.57} ^{1.58} ^{1.59} ^{1.60} ^{1.61} ^{1.62} ^{1.63} ^{1.64} ^{1.65} ^{1.66} ^{1.67} ^{1.68} ^{1.69} ^{1.70} ^{1.71} ^{1.72} ^{1.73} ^{1.74} ^{1.75} ^{1.76} ^{1.77} ^{1.78} ^{1.79} ^{1.80} ^{1.81} ^{1.82} ^{1.83} ^{1.84} ^{1.85} ^{1.86} ^{1.87} ^{1.88} ^{1.89} ^{1.90} ^{1.91} ^{1.92} ^{1.93} ^{1.94} ^{1.95} ^{1.96} ^{1.97} ^{1.98} ^{1.99} ^{1.00} ^{1.01} ^{1.02} ^{1.03} ^{1.04} ^{1.05} ^{1.06} ^{1.07} ^{1.08} ^{1.09} ^{1.10} ^{1.11} ^{1.12} ^{1.13} ^{1.14} ^{1.15} ^{1.16} ^{1.17} ^{1.18} ^{1.19} ^{1.20} ^{1.21} ^{1.22} ^{1.23} ^{1.24} ^{1.25} ^{1.26} ^{1.27} ^{1.28} ^{1.29} ^{1.30} ^{1.31} ^{1.32} ^{1.33} ^{1.34} ^{1.35} ^{1.36} ^{1.37} ^{1.38} ^{1.39} ^{1.40} ^{1.41} ^{1.42} ^{1.43} ^{1.44} ^{1.45} ^{1.46} ^{1.47} ^{1.48} ^{1.49} ^{1.50} ^{1.51} ^{1.52} ^{1.53} ^{1.54} ^{1.55} ^{1.56} ^{1.57} ^{1.58} ^{1.59} ^{1.60} ^{1.61} ^{1.62} ^{1.63} ^{1.64} ^{1.65} ^{1.66} ^{1.67} ^{1.68} ^{1.69} ^{1.70} ^{1.71} ^{1.72} ^{1.73} ^{1.74} ^{1.75} ^{1.76} ^{1.77} ^{1.78} ^{1.79} ^{1.80} ^{1.81} ^{1.82} ^{1.83} ^{1.84} ^{1.85} ^{1.86} ^{1.87} ^{1.88} ^{1.89} ^{1.90} ^{1.91} ^{1.92} ^{1.93} ^{1.94} ^{1.95} ^{1.96} ^{1.97} ^{1.98} ^{1.99} ^{1.00} ^{1.01} ^{1.02} ^{1.03} ^{1.04} ^{1.05} ^{1.06} ^{1.07} ^{1.08} ^{1.09} ^{1.10} ^{1.11} ^{1.12} ^{1.13} ^{1.14} ^{1.15} ^{1.16} ^{1.17} ^{1.18} ^{1.19} ^{1.20} ^{1.21} ^{1.22} ^{1.23} ^{1.24} ^{1.25} ^{1.26} ^{1.27} ^{1.28} ^{1.29} ^{1.30} ^{1.31} ^{1.32} ^{1.33} ^{1.34} ^{1.35} ^{1.36} ^{1.37} ^{1.38} ^{1.39} ^{1.40} ^{1.41} ^{1.42} ^{1.43} ^{1.44} ^{1.45} ^{1.46} ^{1.47} ^{1.48} ^{1.49} ^{1.50} ^{1.51} ^{1.52} ^{1.53} ^{1.54} ^{1.55} ^{1.56} ^{1.57} ^{1.58} ^{1.59} ^{1.60} ^{1.61} ^{1.62} ^{1.63} ^{1.64} ^{1.65} ^{1.66} ^{1.67} ^{1.68} ^{1.69} ^{1.70} ^{1.71} ^{1.72} ^{1.73} ^{1.74} ^{1.75} ^{1.76} ^{1.77} ^{1.78} ^{1.79} ^{1.80} ^{1.81} ^{1.82} ^{1.83} ^{1.84} ^{1.85} ^{1.86} ^{1.87} ^{1.88} ^{1.89} ^{1.90} ^{1.91} ^{1.92} ^{1.93} ^{1.94} ^{1.95} ^{1.96} ^{1.97} ^{1.98} ^{1.99} ^{1.00} ^{1.01} ^{1.02} ^{1.03} ^{1.04} ^{1.05} ^{1.06} ^{1.07} ^{1.08} ^{1.09} ^{1.10} ^{1.11} ^{1.12} ^{1.13} ^{1.14} ^{1.15} ^{1.16} ^{1.17} ^{1.18} ^{1.19} ^{1.20} ^{1.21} ^{1.22} ^{1.23} ^{1.24} ^{1.25} ^{1.26} ^{1.27} ^{1.28} ^{1.29} ^{1.30} ^{1.31} ^{1.32} ^{1.33} ^{1.34} ^{1.35} ^{1.36} ^{1.37} ^{1.38} ^{1.39} ^{1.40} ^{1.41} ^{1.42} ^{1.43} ^{1.44} ^{1.45} ^{1.46} ^{1.47} ^{1.48} ^{1.49} ^{1.50} ^{1.51} ^{1.52} ^{1.53} ^{1.54} ^{1.55} ^{1.56} ^{1.57} ^{1.58} ^{1.59} ^{1.60} ^{1.61} ^{1.62} ^{1.63} ^{1.64} ^{1.65} ^{1.66} ^{1.67} ^{1.68} ^{1.69} ^{1.70} ^{1.71} ^{1.72} ^{1.73} ^{1.74} ^{1.75} ^{1.76} ^{1.77} ^{1.78} ^{1.79} ^{1.80} ^{1.81} ^{1.82} ^{1.83} ^{1.84} ^{1.85} ^{1.86} ^{1.87} ^{1.88} ^{1.89} ^{1.90} ^{1.91} ^{1.92} ^{1.93} ^{1.94} ^{1.95} ^{1.96} ^{1.97} ^{1.98} ^{1.99} ^{1.00} ^{1.01} ^{1.02} ^{1.03} ^{1.04} ^{1.05} ^{1.06} ^{1.07} ^{1.08} ^{1.09} ^{1.10} ^{1.11} ^{1.12} ^{1.13} ^{1.14} ^{1.15} ^{1.16} ^{1.17} ^{1.18} ^{1.19} ^{1.20} ^{1.21} ^{1.22} ^{1.23} ^{1.24} ^{1.25} ^{1.26} ^{1.27} ^{1.28} ^{1.29} ^{1.30} ^{1.31} ^{1.32} ^{1.33} ^{1.34} ^{1.35} ^{1.36} ^{1.37} ^{1.38} ^{1.39} ^{1.40} ^{1.41} ^{1.42} ^{1.43} ^{1.44} ^{1.45} ^{1.46} ^{1.47} ^{1.48} ^{1.49} ^{1.50} ^{1.51} ^{1.52} ^{1.53} ^{1.54} ^{1.55} ^{1.56} ^{1.57} ^{1.58} ^{1.59} ^{1.60} ^{1.61} ^{1.62} ^{1.63} ^{1.64} ^{1.65} ^{1.66} ^{1.67} ^{1.68} ^{1.69} ^{1.70} ^{1.71} ^{1.72} ^{1.73} ^{1.74} ^{1.75} ^{1.76} ^{1.77} ^{1.78} ^{1.79} ^{1.80} ^{1.81} ^{1.82} ^{1.83} ^{1.84} ^{1.85} ^{1.86} ^{1.87} ^{1.88} ^{1.89} ^{1.90} ^{1.91} ^{1.92} ^{1.93} ^{1.94} ^{1.95} ^{1.96} ^{1.97} ^{1.98} ^{1.99} ^{1.00} ^{1.01} ¹

A 1770
the S more depressed high stem project by.
marked as before but S bell pale. Body smooth
the same on the white of the neck of front
and Sd black line further lateral as d. Face
looks much pale depressed (thru may now) and
different from rest. Hair. (per pale)

Throat hair almost separate as in 1, but in 3 and 4
adhere. It is separate and weak in 1, it is in 3 &
joined together in 4, but not on a thin neck.

Sept 1 Ad. 53 (Ad. full above second lobe)
not higher than 2. Frontal shield slightly
a dark patch in center of each lobe, one in face of
both arms, over occiput and a jaw to dark glands
in vertical picture of 3d. posterior flattened. Post
large, spreading, 1/2 distance of lobe of front
broken white d's & s.v. striped, and a band of 3d
brown-grey spots with a larger reddish one on
5, very faint on 11, and the 3d spot full large
parts catocalous, brown pale, fine. 11 is single
short, black, spinulose; 12 hair, websp. w. Single
gel, vi 2 hairs pale. Hair all as before. 3. Throat.
S. White stripe is a series of separate patches past
an eye. In other eye narrower broken line.

12 calyx evanescent. Ovules small. In a series of
central patches showing grey brown. Later greenish
or brown, greenish or a long single dorsal the
whole dorsal strip resembling Fig 5
seen to be hibernating. No hind pair not
seen. 12 almost entire and hibernating.

Sept 4 Hd. still .6+ subacute 5.5 find Slugs.

Sept 27 Hd. 8 (second lobe), a few days not yet long. Hind
slight lobed, $\frac{1}{2}$ height, lobe quadrangular, sides
projection distantly. Translucent whitish, a large black patch
in the 1 ad. lobe, irregular oblique, running back to occiput
a round patch over; black & whitish in lateral section
was black, sides pale rather long. Body pattern shows a
little largest 2 lobe & as large as other, 13 with small
translucent cleft, a white dorsal band unipressed intercal
blotches, each of 3 trans. confluent streaks distinct w. 4-
11. A black more lateral line, 3 strong seg. loops on dorsal
over as 5 lines covering 11, to 6d with a series of oblique
lines and, 6d - 9d 5v. in 11-13 confluent blotches. A solid
black streaks between. 11, 12 & 13 dull orange pale yellow
dots, yellowmost distinct d. on throat c. 12 has half below
the slugs white. Hair sparse, moderate, blackish & pale S.
11 and 12 hairs red single. Throat as 1. Fine hair dotted
(black-edged). Red and dots in number (2d)
13 & 14 hairs red single. Throat hair very well defined

Call. 29 42 60 85 (1.2 1.7) rat 2
Hind 6.5 Sd II 78 (mat. same as pale) (Gordell sp.)
Gordell CE to Cat. No. 15281
Rock. New Year 371 762 Chlarelylaria
Graminae eared looper on a tongue of Solids, after the
Bellfont, Aug 7 1899.

Hd. 3 young full not lobed, dentif. lvs. on line
occult. Throat, S. white. Body moderate pale
yellow smooth □ of th. feet and pale with
by shield covered, legs pinkish blue with
tubercles, setae obscure. Tibials bright yellow
with entrants black tip, short, pale. — 763-

Hd. 4. Gonost. with ca. like angle of thy lobes
roughish. 2 prominent points on and side of 2
and bl pointed behind; skin slightly stiffened
creases, not shiny; tubercles & setae obsolet
all light yellow, uniform. Moderate & length
not slender. One J & abd. web in form Hd. 55

Hd. 83 Squashed, flat before higher than wide, the lobes
strongly emarginately produced, making ventral deeply
notched; S. high. Bright yellow, roughish, sides and
mouth darkish shield. L. rough cone or 'ant. edg. & 9
as high as lobes of head, these & the feet
moderately body moderate, but l. body cone attenuates
the post. t., anal pl. pointed, and by shield. □
Skin winging densely fine white glands except
trace of sd & last line to the dot being larger
vent. All pale greenish yellow like calyx of the
Solids flowers. Measures rather marked. Setae obsolet
Hd. 55 all brownish yellow, trace of a red d. line, distinct and
Hd. 6 as next but lobe of head lower & conical, less pointed
but entire as in next stage, the greater than
of nose yellowish and showing the raised sd line more
distinctly. C. the cone more tipped. no wrinkles

Hd. 8 High ventral deeply notched, lobes conical, roughish
stipeen, face greenish green, lobes on side shield
with brown. C. the point sessile, and as high as lobe
brown. Body rather slender, green yellowish, granula
the grande large sd giving appearance of a faint pale
horn. Ventral a little flattened & darker green
and shield. Concolor, the feet a little brownish
when from pale Solids stem (va)
a dark red d. line distinct at the ends

hol. or even larger hd. 85. Varies in color
yellow green, leaf green, whitish green, or red
but absent, dotted in distinct. - 762-

763 I Hd. 3 Aug 17 (isolated) Cut Sept 10 Cut No. 15286

Spred Aug 18. Not 762 but arbore sp. Hd round, with
modest velvety hair shaded by side & base
body translucent and yellowish a distinct band of bright
white length and a shorter on broad. The feet dark
and shield dusky, col obscure. Setae short, granular
pale; tubercles smooth, brown. Spots thin white pale
all on side between with pale brown d. stripe only
shoulder widely arranged, dashes brown.

Hatching hd. 6 mm, stipule velvety, pale brown
eyes black, body granular, rather robust, cylindrical
edge a little moniliform, not shiny pale
fusky yellow, a series of pp. brown granules dashed
darker. Trace of a few lines on top & base faint
pale testaceous. Tubercles oblate, setae short stiff
dark with entangled tips. Spots not confluent
concolorous, not number of lines.

Aug 25 Hd. 9 Round, stipule velvety & high pale
between eyes black smooth brown. Hd smooth
moderate amount of coarse granula, setae dark
but stiff. Neck with elong. tip pale yellow
stipule green tinted, a narrow brown band around
tip, with a midline into arrow shaped marks (at
joint ends) a short sd line on thorax & trace of
by hind on ant. base. Ventral clear & pale
slight whitish, feet pale. Other views & faint
or distinct brown d. & sd lines, forming the arrow-head
marks. In one marks all large and brown & pale
but, the brown predominating.

Spots in a slight webbing in first half. Rest naked
purple, smooth brown, pale. Dorsum. Pale
whitish brown, a dark brown dorsal line not far
apart. Spiracles black, ~~very~~ close concolorous or
brownish brown with black in which case the
spotted are more numerous and the thorax &
purple black. L 8.5 mm Cut Sept 3 1899

763 Pupa same shape 26.5 mm dull yellowish green
purple translucent wings all brown and cap a
circular brown d. line over purple & edges of
circular brown d. line on dark brown. The

764

Yolphi Cut No. 15278 laid one egg Aug 17 1899
Very regular elliptical, well flattened but not
angled or with conspicuous face, rounded. Covered
with rounded shallow pits, neither kindly arranged
nor margin forming rounded longitudinal reticulation
(i.e. all also toward center), finely granulated.
Pale whitish yellowish 7 x 4 x .25 mm.

Hatched Aug 19 Hd. 2 & with col very pale reddish.
Body translucent orange color, a dark line sd stripe
splende & faint on thorax, brown & distinct on abd, but
obscure on 10-13. A slender ss oblique, transverse
10-13 but feet pale. Was pleased with Solanum flowers.

Aug 21

Chelyx 1/2

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765

Fus heterocampa on Black oak

Lindens River Belfast Aug 21 1899

Plant known before last stage. Every
lance has white, like
3-areal foot, indigo
11-13 + yellowish and
cutter flesh + brown spot
in 5, 7. Island on 7-13
has complete borders
a brown dash 13.



green
with 2
islands
765

brown
with
islands
765A

765 (green form) T Aug 31. Cut in pot.
Got a slight pink hind tusk.
Brown form after T Aug 31.

765 [dead plant July 12 1900]

765A cut July 7 1900 Cat no 15999

Heterocampa obliqua

766

Harrisoniana on *Pteridium aquilinum*?

Monistown N.J. Aug 24 1899

Hd. 8 long, square, bluish apex, pointed to a
long thin curved forward bearing i on upper aspect
before tip; dark brownish black. Red apical at 5
+ 12, 12 strong, rounded with pale blue apex. Tubercles
large, irregular, rounded, ii 9-5-7, 12 + 13 especially
tobacco brown stripe, i always smaller than ii. Roof
slanting brown light + faint white in the again
of the weak tubercles 3-4 & 9-11 - narrow, then
pale d. + last line. Tubercles shield + leaf plate
black. Setae very pale, single except vi which has
a couple of short hair besides. Svr pale whitish,
forming faint sep. oblique marks.

First day Aug 25 Hd 1.2 + same as before on end of
neck hairs. Red soon, tubercles high above like
color mag. bluish, washed with translucent
interv. between 7-12, then white line as before.
Dots d. + sd and oblique 3-8 lines. i-ii 9-12
a brown, ii highest. Tubercles many all single vi
less 4 hair and many hair a by dried; iii 9-12
less than other hair beside the very apical one
Hairs long, white, stiff. Latter puncturing the wet
merely appear. Hair firm, white, sd brownish
at ii sv. Motions running down on art. side of legs
then over below iii including the prolonged leg tubes
brown white streaked.

Aug Sept 1 Hd 1.6 Same but white color more
extended on 7-8 in fine streaks. Hd all brown
black shiny, turned to before body brown black,
and 2 pairs of tho. feet and 11-12 anterior d.
sticking to i 12 tubercles. D. + sd fine white
hair broken in 2-5 and somewhat distributed
over i; a sv white patch on 6 just a series of

delicate spiny hairs on the base of the foot,
strongest ant. post. which on 8 post, 9 & 10
was replaced by dense covering of pale
iridescent white bristles. Same fine hairs
on dorsum of 13, Tubercles correspond to
before; body slender, strong angled at 5-
and 12, 12 with a high bump. Bases of legs
with hair above by plates, vi single and long
among others 2d (3) hairs. Two hair on base
of large tubercle iii 12 and several on N 13.
Small hair on vi of 5 & 6. If not 2d hair on
rest hair of vi struggle nicely.

Shed Sept 6 Hd 2.3 ± Tubercle all decidedly shorter
the head hairs also relatively shorter though
still about as large as before. Tubercles not so
rounded except the dorsal one of proximal part
5-7 and 12 which are conical, styling elevated,
i-ii of 12 in a square almost alike. Coluration
as before. The two long hair of the prominent ant.
central tubercle of cyl are entangled in
the smooth part of the cast head case. On
base of leg 7 vi is single with one 2d hair, and
a comb of 3d; the base of leg 7 is pointed
and swollen. On legs 8-10 the hair is short
being up to and surrounding the single large vi.
Later color of mat. Dorsum 1, 3, 5, 7, 9, 11 &
front margins brown, the rest nearly black. 9
nearly entire grayish white

Shed Sept 13 Hd now, not hairy. Tubercles all
small but not well bumped and angled. Bases
of all just having numbers the same (see blow
kappa) except 12 which all black as also they
dorsally.

967

Flowers commonly on flowers of Solidago
Setifera Aug. 27 1899.

Hd 1.0 pale greenish or yellowish with 3 main or less
distinct stripes of brown dots from neck over to
narrowing to face reaching along top of head & nose &
face antennae. Legs dark. Hair, few, scarcely
lobed, moderate. Body moderate, somewhat
robust, uniform s-v ridge a little prominent,
the tubercles distinct and with enlarged bases
giving the ventral esp. lat region a hump-like
appearance. Ventral color rich yellow brown
blended with brown; abdominal band undivided elongated
and dentate and also widened seg. and becoming
upward as blotches 5-9; a clear space yellow
in the hairy s-v band. Tubercles blunt in
relaxed state, setae sharp stiff, pale and pale.
Some variation. One has line joined in head 5d
to 6d; smooth greenish with thin markings faint
hd. 3rd whitish yellowish marks ad. 1, (part) 5d
and 5d (distal) brown brown, mostly short and
wide blotches, all pale and less distinctly marked.
Horned finger free except last and slightly shorter
soft cylindrical, tapering behind, a ridge at upper
edge of very case runs forward and is produced into
a blunt horn above the eye directed forward
however a small knob of receives hooks fastened
in a few threads. Green, a red-brown line along
ridge, a horn and connecting them by a curved
line across oblique; serrated brown. Black dots
represent tubercles. More rarely all light red-brown
but between horns a cream-colored darker, may cases
greenish. Black dots few.

Aug. 27 1899 Deftatia insularia Green
Lick Linn 336 type
Huber Entomol II 175 as good a name fair
Abd. L. 2 347 Abd 3/5

Wetlands in flowers of Solanum Bellidifolium J.

Sept 5 1899. When small pale yellow.
Hd 1.2 mm, retracted tubercles, pale yellow, ocelli
black body cylindrical, rounded, 12 rows elongate,
skin densely granular. Tubercles distinct, thick,
yellowish brown, 1/5 upper cone, 8th valve white, 11-12
rows, 12 lower cone, & also pale and 18, 11 stripes.
Shield not varnished yellow, a shadow powdering a
block of mud; a narrow lat band with an arc
on one side of each eye meeting toward d. and
separating from it by a white shade. Head
tubercles sd mud above; a lateral black band
reaching spiracle. An obscure white 5-6
rows over V. feet & vent pale. C-sh with
add. a lat black shades, separate of faint whitish
and pale unvarnished.

Hd 1.75 Same. Body with marks more pronounced.
Yellow, the basal ground lighter. D. mud broken into
a series of dark lobes in old. young esp. sd but
discrete, the arms generally as oblique curved break
shades merging others from d. shades diffuse
below, touching tubercles; 11 free in older spec.
a small oblique dark patch over III-IV; v, vi w
a dark or light black. S-v pale bright yellow
esp. in before the venturing, in the front body body
and pale fol.



J Apatela on beach Cabo John Bridge, Md

Sept 14 1899. All as in 755 except color which
is very pale almost colorless transparent.

Hd 1.6 pale greenish-white, bottom white. Rocky
colorless whitish, densest tubercles (i-iii) and
joints of stripe 12-13 pale yellow. Brown on
both protuberances & corners, these or body, small
conic, obscured crowd, all as in 755.

Hd 2.6 Same, trace of brown lining a apice of holes
but fairly green from food, pale and trans-
lucent. Dense tubercles and faint stripe
12-13 pale yellow. Trace of white sd stripe
broken into oblique marks about i-ii.

Mouths all small conic single hinged

Hd 4. Whitish the face of holes bands reticulated
with dark red, leaving the ground with
mottled patches; sides as d. pale. Roof pale
whitish, shaded with green from food, dorsal
surface mostly dark, pulsating. Sd as lat
bands ill-defined, pale yellow, brown w t
spot and patches surrounding i-ii oblique
and a 12 & 13 forming a more distinct patch
Trace of d. line a brown. Tubercles small,
button-like small ones pale yellow.

2. I generally turn a pale leaf brown, the white
marks making mottled brownish, d. vessel darker
Tubercles small, pale yellow.

Date July 2 1900 Cat 15976

Hamamelis. pale form

Calc. 43 .61 .88 1.26 / 1.8 2.57 70 Mayo
100:19

Pups cylindrical, slightly tapering back forward the thorax
sloping. Flesh colored, creamy white, base of the reddish
tail like a horn and with numerous black spots
as large as a 776 shot a ventral group
are cases, each with edge cases esp costs 9/-

Eggs of *Scoparia fulvicollis* from L. H. Ginter, N. Y.
Laid in rows on grass blades. Form conical
the base flat, more than hemispherical.
Shiny pale yellow surface very finely mottled
brownish reddish, the lines thin, dark in
the light areas, irregularly hexagonal. D. 7 mm
Hatched Sept. 15 1/2 inches, slightly hatched, pale yellow
shading to brown a species of lobe a large round black
spot on face of each lobe and a much smaller one on
ocelli w. 4 mm Roof whitish with faint brown, the
intervale and anal plate both slightly darker than roof
spine long black. Hair all single, no subprocesses.

~~Chrysolina~~ ~~luteola~~ Hb. 6+ rounded lobed fruit, pale transparent
between a large black patch in front of each lobe above, each
black mixed dark brown; with small transverse; with;
single variegated; many variegated. Body brown brown
faded brown, a broad shaded brown stripe, intensely
irregular on the transverse, with large colonies and
with small black patches on each lobe. Hair
black & pale striped spirals; pointed points
about. On 5-6 we see large set want.

~~and a manova, irregular but streaking forming broad rings about width III. IV single, a very small oval & a long point, and single pointed. V large, a group of hairs on tip obscured. A narrow dark line in vertical stripes~~
~~Sept 24 Hd .75 (ma. b. less than 8) rounded, yellowish
streaks and white, a black spot on face &
each lobe above a small eye over ocelli and very small
one in apex. Mouth brown. Body cylindrical anteriorly
with distinct ventral groove. Scaevs dry hair on
2 bases of 3-4 and 12-13 much longer than in rest of
body. Hair thin fine shiny. Palps pale. Six
body, dorsally dull reddish, a darker dorsal~~

from the large units just below it and IV+V; II+III and IV are present as single bands. Posterior to II+III, I cut III and small posterior units, both all surrounded by whitish rings. 2 shrunk up, so as to be concealed; no hair from it.

Spine (Fig. 1) on the Cerv., vent. line with hair visible between 6 post. 6d are fused between II and base of a last one above III; below III including 5r and first pale whitish, sharply marked from dorsal color. Next black, II, III, V and VI large; small, all many hairs except I and V which have only 2 or 3 hairs. IV is a tiny undivided section behind the spine, just perceptible. With 2 rows contracted, the Cx. indicated, 3 a little elevated above 2. On thoracic units as before, II+III quite visible.

SPIKE (Fig. 2) Hd 1.2 lobed full, shining pale between each with spot on each lobe before one & 5, a short transverse vertical gutter. Scutellum brownish black, a current of lighter brown, only near black, a faint pale line between 5d & 5r now, straight & even like 5r the broader, both obscure. 2 much contracted, other long hairs of 3 overhanging head. Other hairs consider. black & white. Most all large, another form, many hairs except in neck is obsolete, is a large unit, smaller than II; III larger & all, both dark gray with black bar to vertex! All feet black.

SPIKE (Fig. 3) Hd 1.8 full & rounded, occurs at see lobed transverse pale line from the small 4 and a transverse band adjoining it a curving scutellum as well as vertical anterior narrow lobes. Fabrum antennae & mouth pale body black under gray as also 2 which is crossed with hairs except 5r which is on shining small. Lines all obsolete, 5r fold a little pale; hind foot black abd. on pale. next large black; hair black & white underneath a band. Hair was overhanging head and first 6d & occiput. Anterior pale, hair black spot on face each lobe & apex; teeth in 2 groups narrow black; hair in a various nature. Posterior narrow, 18 a division near haemal. Black, 5d fine faint points pale brownish; 5r line whitish in a broad pale zigzag area that extends from IV to vertex. As hairy poles with cross & short d. line appears on a shade below the 5d and above the 5r shape.

SPIKE (Fig. 6) Hd 2.6 rows full, rather large, not lobed, 5r yellow shining adducted interspersed with black as before mostly pale green pale. Posterior 2 contracted, with large hair black, is obsolete. Dorsum dark gray with shaded callosities. 5d hair distinct bright orange oblique esp. front n 5r d. line 5d hair distinct bright orange oblique esp. front n 5r side black. Subtly thin pale yellow a little transversely like 5d. Ventral gray, feet very pale. Long hair in 3, 4 & 13 black, 5-6 yellow 7-11 orange penicillate, 5r hairs orangeless blackish.

771

Sept 20 on lot near 5290 Synchitina glauca in
N.W. Sept 20-22 1899, back yard Washington D.C.
Elliptical, strongly flattened on two sides, the flat
faces concave, sunken the edges well rounded
but a little rounded; side view shows wedge
shaped, the broad end truncate roundedly and
elevated on its center so as to be almost quite
rounded like the narrower end and so except for
a slight angular flattening noticeable from side
view. This like a cable than the oak sp. (B) as the
sides are rounded, not flat. Surface all fine irregular
reticulations, not very strongly raised. Pale slightly greenish
yellow, shiny. Size .6 x .5 x .3 mm. smooth edges
and sharp pretty good cables. Late pale red

Hatched Sept 28 went in flower of aster & got several with
piece of chaff & pollen. Hd adn, slightly lobed, pale
green, smooth with scales with white short granular
setae. Body cylindrical smooth, tubercles with large
especially iii. Dark brown-black, annules with small
yellow, esp. on 12-13 which looks lighter, traces of a dark
d. line which is cylindrically prolonged & with curved tip.
Setae white. In old shot with flattened enlarged tip except
iii which is very long (5-9) and with button tip. This seta
is shorter and in the base pinches the frequent adn.
Sd setae 9-10 and 12 also prolonged, Hd & smooth
than the younger ones of 5-9. Skin shrivels rather thick, thin
size II or I (hd 25) round, slightly brown
color of body but no brown, the setae gradually turn
and become in place the long seta and coming from
sunken annules bases. Colored brown or black
and speckled with brown. Skin granular angular
form all broken into fragments of various objects.
Size III 13 Hd 8 (hd 15) hatched dark brown.
Smooth, setae obscure, Intern tubercles sparsely
scattered, becoming near surface and a pale yellow
body black colored, do not slightly flattened, tubercles in
long elevations, setae small except iii about 5 long
bases from on elongated tubercles. No wrinkles but
projections, the slight angular elevations raised
slightly for all the tubercles. Gray brown, shiny

posterior white granules, an obscure double white
d. line crossed by four lines of a white test. band
on the angular elevations just Tuberules pale
as on small pl. & low feet setae white,
all dusky except those on 12-13 covered with pigment
& flowers which often cling to the short stiff
setae II. To my knowledge is spineless. Test pale.
The Oct 20 Hd 8 body short and thick, angular from the
exterior but without spineless tubercles i.e. all are
bright white ones with short stiff setae but with no
elevation of the body; ^{III} is a large one with smaller
setae the tubercles hardly spineless in its shape and
risen from a slight lateral elevation & Buckley of
the body; before and a little below it is a smooth
sunken tubercle one nearly horizontal. ^{IV} is ^{VII} recent, ^{VI}
^{VII} about 1 between its and species, with white
cover scales & ^{III} ^{IV} small scales of them in about
dusky color ^{III} ^{IV} ^{VII} ^{VIII} ^X ^{XI} ^{XII} ^{XIII} ^{XIV} ^{XV} ^{XVI} ^{XVII} ^{XVIII}
are present near edge of the recta. No "III" is III, the by
me so it as I see the spineless tubercles are in which is
also before spineless. Spine on dorsal aspect of the right
bulge being IV. ^{IV} is not one in which is the spine on
vii. There is smooth black one without prominent tubercles just
below it nothing the prominent ones on edge of ventr. the first
is VIII. The spines are in 5-9. Tubercles of the way and
10-13 are smooth even voluntary are almost like
setae II a large and stony like is 5-9. III is undulating
now & are small white ones. At tubercles and tubercles and
no smooth prominent. Blackish grey; green bluish brown
done of points with rows feather white granules, the
prominent tubercles which are on angular elevations marking
in a double d. line along the angular testa with the
concentric lines distinct. 12-13. The feet pale; plates
large but colored as capillary like body. All white with
a band of pinkish color to the stony tubercles.
Hd 11 mm, smooth tubercles have the 2, whitish, dotted in
black on sides are in a double stony or reticulation. The
width 1 mm. The apertures are in short cylindrical rods
with blunt tips. Could not find Hd though found skin
but not high Nov 10. Died March 1900, though lived
a great part of the winter.

copied for Mr. Clittenden
(Dept. Agr) Oct 15 1899

772

Diplogena trispinosa, eggs from Mr. Clittenden hatched Sept. 22 1899. All in a close large double row large above the other, some with rows covered with fine grey down from mouth. Sphenocephal well rounded, the base a little flatter than the apex, uniform. Vertical ribs numerous (± 60) and small, joined by distinct cross-bars even as large as the ribs themselves and forming rectangular or slightly hexagonal areas above the ribs do not connect till near vertex when they become converted into reticulating smaller toward the apex. Body pink. D. 5 mm. Snout Head rounded bilobed, about as high as wide. Dorsopores & as high as head, without quadrangular pieces. Labrum quadrato-trapezoid mandible projects. Spine set black anterior moderate pale-yellowish white pointed in $25 \pm$ mm. Gills straight yellow round behind set black bearing 4 setae, 2 more (of which one scarcely visible) detached just laterad. Respiracular & gas tubes bright blue. Anal plate semi-circular dusky blackish. Body robust, slightly transversely tubercle large, round, black with very distinct short black pointed setae. These are removed in subapical 3-4 in a line small 16, 17 large, all were regenerated & evenly spaced; in 2 vi single hairs (ii & v absent). On abd. i, ii, iii large, equal, 7-8 or 12 approximately in a square, in below the spine, slightly below the middle sphenoid, & with 4 as large as the dorsal ones. Leg shields small, quadrato-black, ventral tubercles white, also black. Feet 7-8 slightly smaller than 9-10. Tail all seen from post.

Sept. 27 The same, a little thicker & more distinct elongated to 4 mm., slight lobes, shiny black. Gills black and flat, not wrinkled. Pal. white. Whorls with faint traces of 1. 8d. tail slightly grayish on side. Tubercles large. Black & dark blue as before, thin subepidermis present. Hair strong stiff black. The few black other pale & dark shields. Left 30 to w. 65 mm. shiny black, sides even, eye and bottom of pale yellow. Shields tubercles shiny black. Tubercles large setae coarse black. Body general yellow & 8d line white straight narrow & even; anal color ventral last. and as a blackish shade becoming

18, defined ventrad. A broad pale substy. Vent: subacute grayish green shading to obscure pale center. Body triangular, 12 very slightly enlarged. ~~shd~~ Hd 1.1 Black, quadrangular pieces, between pale whitish, sides are pale yellow filled in with black markings. Rowan, 3 blunt lobed spines. Other black directed ventrally, coniform, mostly dusky. Tubercle large, black. Body general green & 8d (1) and trace of maxilla at base pale as before. 58 line brown, which another with greenish and divided ~~by~~ by a central line of the color. Feet dusky. Below distinct black bristles long all pointed Hd 1.8

Foot coll. from Hd. 1.8 Red along blood, 3 long, the greatest part pale near atony the vertex; mandible granular. Brown black, other whitish with pale esp. post, bases pale white scales scattered entirely below pale. Body cylindroid annual, a very strong exoga. feet granular lobed. Dorsal dark brown, 4 bristles short with pale bristles more green but also from mouth. Dorsal pale, greenish oblique except on dorsum and anal jet. Ed distinct white stripes a little higher 12-13. Substy green sharp pointed, not crossing spiracles which vaguely filled in with dark red markings. Feet all dusky, dusky black, not strong white, and by d. & 8d line anal jet dusky with 2 white spot front of broad line tubercles dusky, black, with short stiff black setae. Hd 3.3 Pectoral black, a large jaw ad fin ending 3 in vertex. Brown black, pink posterior to pale. Intern white, all as before. Red as before 12 m, very strong exoga. feet equal. Blackish band above, varying a shade, the lateral space extending to the dorsal ventral pale, greenish & dusky crossed. D. low ventral, as noted as 8d & regular but small granules. Ed. pointed mouth, straight. No pale remains. Jaws are brown bottom i and ii and across iii, orangey bluish line; slight black streak under eye ed. teeth. Intestines brown, sharp. The edge a dark irregular white filled in with pale red brownly, feet all dusky. Ed. black, very narrow and by white d. & 8d line anal. Gills dark, cut by pale d. line with a constriction and. Tubercles convex, doesn't come down, longer a 12-13. IV 5 upper, 67 from middle. V 11 above, 10 upper, 11 $\frac{1}{2}$ to 1, 12 lower. Sets short rather stiff, dark. (Dept. Agr 431)

moths emerge 6-7 P.M. Fly an hour after sunset and
about before lights. ♀ lays eggs in evening and
does not fly in morning

773

"*Stiboleta maculosa*" from S. Rygdenburgh in
1899. 50 cocoons. moth emerging Nov 1899
♀ mated, eggs evening Nov. 21. Eliptical flat
finely reticulated with raised hairs, angularly &
irregularly hexagonal; 2.2 x 1.2 x .1 mm. Tard in both
legs, sinuses overlapping like shingles the whole
mass strongly shiny dark ochre yellow, rather opaque,
the cream margin transparent, colorless. very
smooth, resembles *Silene viscaria* egg which are
also dark yellow.

Hatched Dec 4 3-4, 6-12, 13 almost equal 7-8 a trace longer, 13
remained for 12 directed more post. (1) 2-12, 3-4, 5-6, 11, 12 not
much longer than the other two stout & thick, perhaps
half again as long; all have thick, conic, blunt rostrum
short and with fine stiff setae radiating from
the apex. Horns separated by less than one mm. the horns
long elongate, rounded rectangular, side II; cut across
as 1:1. Spaces equal, moderate, concave, 3/4 mm
apart. They smooth, shiny; ochre yellow. The horns
a little whitish; leg incisure marked by groove that
appear somewhat more transparent than the rest of
body. Length 1.4 mm. Horns often distinct before head is
out of shell no sign of anything being evaginated.
and now
now, by back mouth thin, blunt & fleshy prominent

all cut on a bunch close
together and not stiff.

Fig. XXXX KKKK KKKK

(II) Dec 7 Sowden's Spots
& former elongate slightly
order parallel, d. & last above even long, small
feet or with but a little increase. Horns large &
thick but not long, not much over as long as body

① 3-4 11, 12 large, 6 & 10 small, 7-9 equal small
not large than 6-10 distinctly; 13 small, about like 6-10
② all moderate, 3-4 scarcely larger. All several
spotted with black tipped yellow spines. 9th
large with worn oval crust; constricted

Set Space small. Leg incisure well marked
a groove in the center of each transverse & d. sp.
divided in 2 lines apparently representing (2).
Whitish yellow, the horn clear yellow; no
markings. Skin extremely finely shagreen reticulate
with light line wide top form like the
confusing surface of early nasoni. See 7 A.M. Shaded

Dec 7 1.4 adt ate orange grayish
" 8 1.8 adt 8-11 Dec 7-3 somewhat flattened like maculosa,
" 9 2.2 " Rowed, distinctly elliptical on side on large
" 10 " " 11 but convex end round; of last above broad
" 11 " " Subequal. Flat, doesn't arch a little, sides narrow
" 12 " " 13 " " 14 " " 15 " " 16 " " 17 " " 18 " " 19 " " 20 " " 21 " " 22 " " 23 " " 24 " " 25 " " 26 " " 27 " " 28 " " 29 " " 30 " " 31 " "
Row ③ 3 + 11-12 stout, come out very fully
time the short ones, 6 very small but 7-10, 13 and
the ② horns almost alike, short, come at top very short
as long as basal width. All densely spined body
has a narrow blackish d. line 6-11 & 6-9 evenly
5 faint blackish bars in the dorsal measures; a
rather distinct black blotch in lat. space embossed
the dep. space (4) in its upper portion. Ovistab. is
the increase 7-8; 1 in furcate on the front side
1-2 faintly striped in py. to represent. Today
the line distinct as fin low, almost four rows apart.
1-2 long black patch on each ordinary hidden under
1-3 while the horn is retracted. Side the horns meeting
1-4 wholly or partly directed into the tail. Spot remains.
Jan 1 6.5 adt 8-11 Dec 19 distinctly flattened and elliptical. D. sp.
" 2 6.6 " " 3 7.5 " " 4 8.0 " " 5 8.5 " " 6 " "
body narrowly not at the ends, lat. space more
elliptical, 5-8 very small. Ridge scars pointed out
the horns distinct the ad row being out a trich and
line of 5 prominent ridges. Sp. of 3, 4, 5 second
larger & twice as big as 3, 6-10 esp 6-10 very
small, 11, 12, 13 immensely smaller, scattering
the ad. horns. Last rows all small; 6-10
large feet, 3-4 ever smaller than the rest
Horns all thick rather blunt, densely spined
the spine very sharp with black tip. Greenish
yellow, a darker blackish green main of skin
cut by broad transverse black bars which for
large blotches over dep. space (1); (2) represents
by tiny black dots scattered over a scaly
granules or 3-4. On the side a faint faint

extinct forms on?

Horn in the middle of last are a large black spot about 11 of 7-8 and smaller ones, 11 4-5 and 16-11. Most of 7-8 is blackened and cells are much of very black pigment. (4), (5) & (6) very minute spots of black dots are perhaps (3) but I do not distinguish them. There is a trace of a pinkish color in the base of the horns. There very fine granules becoming granular 5-8, but the granules sharper wrinkled like texture of the winter) persist around the bases of the horns. The granules are distinct in the exposed parts of the horns. On large black. The black marks are punctiform and irregular & shot differing in different areas.

~~Specimen 25~~ Shape as before & in all no material change. Greenish yellow, dorsal spaces 03 & 04 whitish, mostly surrounded with black, the other spaces not so but faintly & obliquely. Spots present except a 12-13 dark band on 3-4 & 5-6 on the sides the spots are rather irregular but there are no conspicuous large ones as before, (4) being surrounded by black or also esp. round the dorsal spines, (5) also defined a pinkish esp. Horn 3-4 11/2 long, as the rest pink, 6-10 esp. at base all finely spined with long sharp edges, but have a pinkish tint due to the color of the spines, the skin has yellowish, cream like spots and less greenish on the body. Skin granules the granules near spaces are pinkish beginning below while over granules points esp. 5-8 and dorsally on the top where each has black pigment in the base (3-5 and) elsewhere clear. The smaller horn is 06 which has red or brown stripes on the large black the rim smooth with setae. The pinkish band above yellowish & orange in the center of the esp. d. & last. The large horns are about as long as diameter of body, very prominent, at end of stage the d. spec on last above horns are filled in with mass of light green pigment falling and I see it again esp. in 364 when they are however, long from present specimen.

~~Specimen 31~~ Somewhat flattened small space broad, first a little concave, curving over at the end. Last space nearly flat ridge projects, 3-4 space space slightly elevated. Horns 5-11 rounded tip about 1/2 height of body but slant over before (absolutely) 3-4 & 12 think horn 5-11. Lateral markings about as long as wide, subsequent 6-10 very small, broadly, 7-9 = last long, all inconspicuous. Horns all densely spined. All horn except 06-10 faintly

purple, bold bluish green except for an opaque yellow-green dorsal & ventral cover of space 5 post 12 and last 3 post 12 continue except for horns and esp. Spec. 11 as in wall marked; Spaces (1) and (4) pale, strongly bordered with black, with smooth, slightly purpled esp. black, skin above densely covered with fine opacity, and above pointed. On the yellow-green all are darker but in the blue green they are pink esp. through 3-5. On a few black spots on the 5-6 blue green & then above base last horns. A distinct ring of black spines now base of horn 11 and less so on 4 & 5. The horns lengthen during the stage, are distinct purple (except 06-10) and a purple band appears in dorsum of 5-6 centrally in the blue green.

~~Specimen 26~~ No essential change except the presence of a yellow border to the dorsal green are the callosities, shape as before, the horns all a little slanted and thicker at first. Subdorsals of 5-10 present as before are several spined. With 2 pinkish spots before spines on the sides esp. left black dorsal yellow green of more yellow on the edge all arms including a ring about the 3d horn 11, and ventral the 4c fan line of black spines. Horns pinkish except 05 & 11 which are cold blue green and 06-10 which are greyish colors, 06 has only 3-4 spines, spine salmon colored with black tips. Spots (1) & (4) pale narrowly black edged. Setae of callosities on top of last horn 5-12 are also on last 4 and over a few on top of horn 01-5, 11 and 12 and a distinct patch on 13. Skin granules on before dorsum of 3-4 shaded with purple like as before. The yellow green blanket reaches middle of first 3 esp., it does not form on the sides & especially the 05 horn may be much 04 just touch base of 03, in line edge from posterior being straight, just above (6) & above 012 when 2 pairs slightly raised are on 012 and dorsum instead of single esp. 06 in 12-13. It completely surrounds the horn 011 but does not appear to do so to 06-10 as they are concolorous or transparent. The yellow line about 011 join that above the edge below post to the horns. Head pink, jaws brown and several brown blotches about the oral edges anteriorly long, the last four profusely. Its length longer mouth not as long as the preceding. ~~Specimen 44~~ (interpolated) As before, but horns 03-4 and 12 as well as 5 and 11 are blue green, the others still pinkish; there is a narrow very dark green edge to the blanched outside the yellow are spaces & in perfect position

row of black spines

new spines abn ① 13 and ② 12. Dorsal 6 are obsolete represented by oval sets, 7-9 are still distinct, 10 is small almost as 6 was before. A white line along side edge. Otherwise as before, shape & size. Horns short, conic, the longest about as long as wide at base, spine salmon colored with black tips. Dorsum of 3-5 purple shading to green on edges, rest are clear blue green. Blanket light orange yellow green shading to yellow along the edges varying somewhat as in amount of pigmentation between the anterior horns. Shoulders abt ③ 6-7 (4-6) black rounded, calliope patches large on ② 4-12 and ① 13; end spine brown. Horns ⑤ 6-11 are blue, shading dark green at base. Skin spines black abt 3-5 and about edge of blanket; elsewhere colorless. Sh. abt 1.5 mm. 4th calliope in end of horn ⑤ 6-11. Spine very dense. Horns ① 7-10 clear white. Late horns ① 5-11 the abt blue yes, the rest very pinkish.

Jan 28 13 (yld) ~~Shed Jan 21 (interpolated again)~~ in charge. The " 22 13 cat det. spine patches still narrow trans. Lines " 23 14 " only. Hd 2.0 mm (sh. abt 1.8). Calliope distinct " 24 14.5 " patches ② 4, 6-12 and ① 13, practically absent elsewhere. Another received 20 mm. in the stage.

~~Shed Jan 31 (interpolated again)~~ no acetone in charge. Few of detectable spine on a web larger, sd horn of 6-10 small, many

" 1 " wide, representing areas with more than one with 3-6 spines, Hd 2.4 mm & calliope also in line from 3. Patches now apical 3-12 larger first, the largest on sd horn ② 12.

" 7 24 " all the horns are short, some higher than wide

~~Shed Jan 10~~ in charge. Det spine good though body

" 11 27 cat now around patches. Horn short, not as high as wide. Sd horns 6-10 with spine except ② 5-10 have one or 2 less on horns on the sides. D. blanket

" 15 29 not edged round yellow, narrow black green black

" 16 29 cat green ① 14/16 P. 50-55 3-4 purple. Horn all more

" 17 " " or less blue, green shading. Side ② dark

" 18 " " green, 5-6 ridge lighter with white line 2 in

" 19 30.5 " front pointed out treated into 2 narrow black

" 20 31 " transverse ④ 3.5 (sh. abt 2.6) divergent

" 21 32 " shape as described, dorsal of 2-5 oblique

" 22 6 spine flattened, rest of body well rounded over rounded behind the dorsum (See before 74)



774

Spines on a low back striped beach plant found in ocean Avon Park to St Augustine Fla. White sandy soil, coarse gravelly plants there. Several leaf on upper side by edges. 2 juveniles with 10-12 mm. without. Hd. 1 shiny black & ty water, parapophyses black, opercular lobes pale, bottom, dorsal pale, bottom edges.

Hd. 1 shiny black & ty water, parapophyses black, opercular lobes pale, bottom edges.

Hd. 5+ all black body slightly green streaks with white above the tubercles, otherwise same.

Hd. 1 (not worn) Hd. 1st black & the rest. body stripes green streaks with some opaque white above the tubercles.

Hd. 8 same. Hd. 6 n. 53

Cale. 26. 38. 54. 77. 1.1. 1.5. 7. 53

Hd. 3 abt 10 abt the fat black, tubercle small & white around it. blackish. Body white, with orange spots Jan 2 (sh. abt 1.1) oblique rows white, the rows being a slight angle below black. In cales being abt equal, 3 narrow rows white & joining in rows numerous pale brown

more on the beach near ocean Palm Beach

Fla Jan 13 1970. Only purpose found food is *Argyrothamnia blodgettii* Ton (Mr. Kingel)

And Jan 20 1970 Cat. no. 15318

feeds exposed or leaves spring in delicate
loose inconspicuous white web. Solitary

as single 775

On Sophora tomentosa Palm Beach Fl. Jan 11, 1900

Look them at first for Metaphysa sella.

No lobes, lobe broad, full, para & para to
water, ocellus very long as mandible.

Slender black labrum pale brown; w. 2.8 mm.
Two feet black wings white; abd slender
green, notched in a vicle, mouth nose outward
body rather long uniform, cylindrical. Cth &
abn plate jet black, round with central white
line & 5d dash; lobe wide, irregular
weak, but orange-yellow. Body markings
say green or dull orange-green on large
irregular white & black - i & ii black more

by a white spot above & below
iii annulus but on base below
spot a clade small & thin
is a white lobe near on a
lobe is involved in a ; iv & v
is in a long white streak on ; vi &
gold which surrounds it, vi is in the upper part
a white patch , vii black at edge, but
bottom about the 3 sides. The middle part
consists of white, the edges, touching except
vi which is nervous, separated by a yellow or white
streak in six figs. Anal feet with black bases
but Feb 11 1900 cat no 15597-8

Mesyna pernochalis

776 (Cat No 7 Cat 15790)

Notched eggs by ♀ 15296 Palm Beach Fl. Jan 11-12 '00

Spiralid, very slightly flattened above & below
symmetrical; about 2.6 long, sharp overcast ribs, not
number, a number turn toward vertex when set
out, can best find & obscure them with vertical
ridges who are visible to lens, rear width $\frac{1}{2}$ inch.
D. 7 mm. Stippled greenish gray, not shiny.

Take a suitable dust red blotch and regular salt ring.
Hatched Jan 16. Top flat, almost but quickly ate green
(one pair) Hd. 5 rounded, wide, full, fine frame, 3 small.

Feeding to larvae brown tinted; shield black; w. 3 mm.
body slender thick like, feet on 9, 10 & 13. Colored trans.
w. green; shield all concolor, & in comparison. Tubercle
anterior row black. A 5-d i-ii, lat (above iii) and stip (v)
and brown lines. Central seg. long drawn out, the
tubercles serrate. Thoracic and

9-13 normal, not elongate. Cth with
2 detached setae on post. corners, 4
on shield: greenish, concolorous. Hd setae
normal, elongate sparsely set on side
and web directed posteriorly, blackish
outwardly. 19 II very small, the seg. is weak.
Tubercles brown lines more distinct, 2-13 with hair on anal foot.

Stip Jan 23 Hd. 5 round lobes, full cheeks below
square, 1 above width of front, whitish, green tinted
overcast brown stripes on each lobe, the 2 next median
inter-join above, being below, one in pair, other to ~~anterior~~
one pair back at ~~ant.~~ which then turns to back of hd
lateral; 4 th on lower edge of cheek, behind occell, is
double on ends ~~approximating~~ forming a pointed ellipse.

Body slender uniform, a little flat, abd. feet on 9, 10
13, the latter directed just 3 from stripe on
each side we all 2-13 the shield visible and
unnotched. 5-d (i-ii), lat, stip (iii-v) with 2 jointed
lines on vi and vii legs, situated below the 2nd
hd and in ventral position. Tubercles small black
well separated on central seg. is above spiracles' ventral
& two wide III. Setae dusky; feet pale.

Ocelli:

~~Strept Jan 27 Hd. 9 rows, large, free from, stigma lobes~~

~~5 rows small. Whist with 5 rows 11 rows. Much a red
lobe continuous with body line. They are a little irregular
and lighter brown in center of each. Body slender but~~

~~uniform, a little flatter ventrally, abd. feet 9, 10, 13.
Pal greenish yellow with dark brown lines about as with
as the following species. These are eight narrow lines d;
double sd, last subtsp. 5-8 as pedal line. The back
are approximately filled in between with yellowish brown or
may be called single thin pale centures. The pedal is very
obscure greenish. Tubercles & setae black. The horns want.~~

~~Abd. 1st 3 rows brown spotted, the next pair brown. This reddish
yellow 1st 1-1 large fm body, rows, full, scars brown.~~

~~wolite with several brown, pale brown filled lines as
before, the central white space are wider than borders.~~

~~Tails 9, 10 & 13. Same as before, also a single narrow
central brown line, a greenish blackish dot in the
sd band in measure 5-6. Single d line near start to
Hd 1.5 and 1.5 (body 1.0 diam) and full are very large
projecting well above 2 and wide then 11 smooth, not
lobed. Pal yellowish with many brown lines running
from mouth to occiput parallel curves. 11 last side
yellow in pairs, a pale as also median often somewhat
brownish, otherwise. Body slender feet 9, 10, 13. Pal yellow
green mixed with brown, 3 lines & a broad band on
Hd 5-8 pale, pale yellowish, 3 line above it (big greenish
dot), 3 sd united by a dark shade into a brown band
6d brown, double last and are double subtsp. subtsp
pedal intersect in the 5-8 fold and is yellowish that rest.
No spines on plates. Legs brown band. Bands not
in measure 5-6. Tubercles obsolete. Setae each long~~

~~Feb 1 Feb 8 Hd 1.2. No change. The anterior one long 2 x~~

~~longer than mouth. Hd like a tetracon apot. 2 undivided to 11.
Gut very thin brown muscle. Gills spreading on four joints.~~

~~5d and 6d line filled in with brown. Blotches dotted in
measure 5-6; double last single edge gray, single abd;
high sub-gig; brown gr of 4 line found in with brown the
sd; dark brown predominated with 3 brown in abd 5-8
alternating nodules & brown - all a pale yellow lines, a
little colored a d. space. Gut pale with spots. Spine
acute, black ringed. Setae with very long & blunt
minutes. Feb 12 Hd 2.5 Same. Feb 16 Hd 3.0~~

~~another 3.4 Subspherical large, a little elongate, thick
and free from, not lobed. 3 low, high throughout
(See after 745)~~

Na. georgica XIV

Eois peruviana Hufnagl n. sp.

777

Up from Cooper 15299 Palm beach Fla., night Jan 12-13
tail of the cover, flat, sideways or even on end, irregularly
elephant rounded, not oblique flattened, one end distinctly
smaller, the other (microvilli) scarcely flattened, rest at
all truncated. Rets. distinct, strongly raised and thick,
uniform, rounded, hexagonal, alike all we except
just at microvilli where they become small & delicate
but are somewhat coarser over the rest of the long, end.
Ociclate blue-green, not slightly shiny. 8x6 x 5 mm
Later afternoon species. Tail white with an irregular green
area on the side and indistinct red spots at large end.
Tails Jan 20 (Rounded tail bird). Hd. first before, rows a short
notch in vertex, the vertex & sides of equal width. White on
face rounded around vertex-side with brown blocks.
Girth dark; w. 3 rows. Body moderately slender. The
upper rays well drawn out, normal. White with brown
black transverse bands as wide as the intervening
white spaces. 2-3 thick & 1 long, concolorous, 4-5
brown black-bordered centrally, the bands incised and
weakly interrupted by the 5-8 fold that fails completely so
edges of bands irregular but not diffuse. Legs all white
the abd. with darker shades. An pl. white. Tubercles
small dark, the seta short, stiff with swollen tips. Setae
finely annulate as most as 20. Incision part of legs
smaller than the central seg. part. Gills a C.N. in a
line small, rest normal and subprimaries. In type spec
it is mostly just normal (no plants, chose Randia aculeata L
eating w/ the young leaves) (found me on this plant Jan 21!)
in folds, white fat, except sharp, become brown, green. Black
bands pale & with a darker patch appear dark. sd between 1 and 11.
This is soon salmon tinted. Tail bands often yellow, a few
brown and some streak appear and some brown flecks sd as 3-4
seed. Feb 2 Hd white with a few black spots, the larger
from 3 are from occl. over apex 9-10; rounded, not lobed.
Length around 4.5 Hd white, the first showing faint green;
first, rim of joints 5-9 often yellow. A dense fan double
blotched line, cut at measure 10 ends back 2 to form a
series of dorsal —, the cuts as far as the others in distance;
a series of black sd spots a small on ant. and two large
ones round off a post a rays, the latter joined by a
slight shade into a somewhat dimpled though patch

composed, contracts at ends, 6 similar or less, but
smaller and thin and spot oblique; a constrictive line,
dark, under a list & cavity of segs. The ends 2-4
10-13 are often upper sinfully white peppered with black.
Later ventral part color is pale green, dorsal light blue.
~~Shel 34/2~~ Hd 9 Same but more distinct. Hd and white with
a few dark dots. 3rd side S, a curv. row of 4 green vertical
color, on upper side & another underneath one on last edge
and thick white d. pale green ventrally, incisure 5-10 with
bright orange bands. Males black from streakily
the numerous (25) annules, dorsal loops, 5d spot,
2 best dorsal ventral dying as before. Tubercles and
setae black, obscure, the latter undifferentiated. - 18 Stippled
slight orange blotches in the somewhat brownish pale top
region. Ends 2-4, 10-13 with double d. & right last tubercle.
~~Shel 34/3~~ Hd 1.4 No essential change; darker, orange
marks more extensive & Hd rounded below on a broad
area. Well each pair of legs; colors as before. Body
pale greenish white with a few red other markings prominent -
about. Red streaks anteriorly between legs along 25-annulus
all the annuli and into patches of the annules. Double d.
and last bands, now obscure double S, broken into the
loops and spot of previous stage but less distinct, none
connected. Orange & extended incision and more or
less d. & lat. 1. Even ventrally a spotting between the
black marks. On a plate without any. On green with
8 long ventr. dots. And plate & legs more finely spotted
spots small, with spiracles black! Setae oblique.
One went in groove 3d 18. (now on in Pandion 7/17)

cole. 29 48 79 1.32 2.2 mt. 60
Crest Feb 18 1903 Cat no. 15644 ♀ ad sp. mottled in web.
Santa Barbara Harbor 4/18
778 (Kroyer des.)
Phryctis? on thorny 2-pinnate Suaeda bordicella
Palos Verdes Jan 1900. ad sp. They eat leaf base
or part above in leaf stem has live in a webbed
of mass of brown leaves which contains a close
but not strong silken tube without much glass.
Leave united by a thin live web. Make an
envelope blotch a bush, cutting back or anything.
Hds 1.4, 2.2, .3, .5 scut, .7
Hd 2.2 rounded, not bilobed, upper edge below &
posterior piece to tubercle; dull whitish
brown mottled with more spots in groups.
Body dull leaf brown. Dorsum rather brownish pale
brown with a diffuse semi-circular brown stripe
rest of body pale with brown mottled with brown
spots; a broad brown black ad last tubercle
in its upper edge; a lot of super stg (iii)
dark brown lines the lat. not fully distinct
from the sd one. Seta short, ciliated in a ring.
Tubercles small, black; 1-11 in line, IV & V approx.
matt but quite separate, & before & dorsal to
IV. Thomas id it, in a lib. IV & V approximate in pair.
Spiracles black rings. Setae long brown, skin
densely transversely wrinkled thru legs, otherwise
3 annulus on ant. annulus smooth and not
reaching dorsum. Hair pale brown. Cap and
plate not large and broad but manus (sic)
broader like the body the oval plate being
entirely brown fine pappus darker as the bristles
are obsolete in 12. (Inflated g.v.)
Hd 3 brownish, eye black. Body whitish with 7 fine
brown lines on each side above & across opercula the
last faintly. Shield concolorous 5.20 7.50 wd greenish
Hd 1.3 D. brown line brown, puberulent, ad-d, 8-11, lat.
superstg (ii) Substg, 25-4 suberulent, not defined, ad line
blackish over others.

Early wine a slender irregularly linear filament
run under upper epiderm, gradually turning to end
where hair emerges to begin blotch elsewhere. Hair
continued as a long dotted central line.

779 *Iponmea* sp

Leaf miners in ordinary morning glory. Palm
Beach Fla Jan 12 1900. Often several on a leaf.
a slight open web or loop of leaf. feet as true
miners but ejects all the frass by a hole 31
collects in masses in the web. Readily form
a new mine. Mine takes all parenchyma

between epidermes; large spaces above veins,
a large blotch near, symmetrical sometimes run a few lobes.
Hd broad flat, 2 under 2, shiny greenish with a
brown tint; mouth brown. W + 2 mm. C-sh
quadrate, rugae, shiny & crenate. Body slender,
body moniliform, 12 swollen, sharply wrinkled
13 small and slender. The feet large, pale,
all very small, slender, close together, narrow. on II,
I and 13, a long pair on 13. Setae 1 wedge-shaped,
jaws wide post. in small, in large subtending a little
post; a tiny seta (VII) just above VI; vi large, somewhat
out. viii small on base of leg; viii writer.
crochets open & circle. feet 7 are recurved & black,
8 closely appressed, 9 less so about width of leg
apart, 10 still more separate but meet together
than 7. On thorax III + V are present. Transversal
whitish green, food dark green. anal plate
shield-like, rugae, blackish in the last edge
D. round with whitish edges.

The legs out in remote cost joints, pale green a
t, hind femur has an faint 5-8 dark red
lines. May impale them.

Pupa like last inst. a brown wavy, cross-wavy tail

Out Jan 21 1900 Cat. No. 15320-3

Jan 20 1901 1-5 pale brownish reticulated with deep wine
a curved line from mid II to S + anterior, 2 dots on S. Mouth brown
and long, cells black. Body thick & rounded, a little flat
tubercles here & there, broad metapost. parts colored above
esp + plate feet colored. Spineless yellowish, head black
white. Body tan, green 780 not shiny; without shiny, *
Setae each longish. mm ringed skin 101.5

mine on *Forestiera formosa* Poir Palm Beach

Fla Jan 11 1900. Slightly webbing the leaves
together with fine web. Eat parenchyma &
whole large whole leaf. Hide in withered leaves.

Hd broad, subtriangular flat lobes rounded, base &
spoon be water; colorless brown shades on lobes;
mouth brown, esp black; w. 8 mm. C-sh large
lobules. Seg. slightly moniliform, thorax narrow
in dorsal abd, 5 abruptly widened 12-13 tapering a
little had very 13 smaller. Anal feet
outstretched, divergent; other small slender,
whitish & translucent, ^{shiny} with a green tint; 12 & 13
set brown reticulated faintly to match head
a small black dot sol on 3 & 4. Dorsal vent green
white edged. Setae long and fine, pale; tubercles
obtuse. 3 on front side of tubercle II b.
No' lobules very large but perfectly transparent
III in line, IV + V. moniliform. (possibly a white line)
^{overlapping} ^{9x4 ft. fence}
IV-VI - 11d. 6 all green tiny brownish dots.

hd 1-6 all green tiny brownish dots.
hd 1-6 all brown a curved line from
stripes from ant. to ventral 5-6 no distinct
and long; apex under 2. Body broadened
shiny rounded greenish i-iii large
smoky slate. Other concolorous.
shield D with dark tubercles
anal fl. concolor obscure. Anal
feet whitish. Setae long pale
1-6 of 3 dark but on contrasting black species
hd 2 all green, seg moniliform a little, hd faint brownish
(shows bright at ends and incisures) Early stage mine
a pupa. Mine wine, white bright not over 2 x long

Hd 2.5 (7th) 1.65). Hd 2.7 / H2.3 (Hd 1.6)

(This larva was a faint yellow sd
shiny reddish line above, white
in open) 3-12. Col. short
be trans. greenish
781

Copulids on Capparis cynophallophora (in bud)
Calle Beach, La Jan 18 1905. Sewing together the
leaves & resting there, usually in a dried leaf
Scarcely any web outside that for sewing.

Hd 2.3 Round, open below 2. A large slender Etd in
ordinary position of retraction antennae as long as
maxilla. White with remote scatter dashes &
jubilant dark brown principally in a single line each
side which are also parallel across
width of lobe oblique. On large maxilla and
mandibular no the retracted head is plating with
thin stiff br. and plate connection with body. Body in
little plates; big incisor marked. Seg. 3 and 4
not armed small and reaching down. Skin
translucent not strongly marked, shiny. Dorsal
and ventral surface brown on rest of open
area white coronal; over ii at iii
a double curved broken brown line
iii being a large crooked arrow from
tibiae, all the rest weak. A broken
white stripe line. Rest of body white
coronal. Setae colorless, numerous

Another hd 2.3 (to 1.65) do but a broken yellowish white
sd line above 1 line the stigmata are. Edge of st
maxilla surrounded by blackish. 3-12

Hd 1.7 Hd dark in spots, obscure. Body purpled d.
with distinct yellow sd line 3-12, double but black
line and broken pale yellow strip; S+ white.
Setae long white + translucent, except iii minute.

Hd 1.6 white with streaks of brown dot in lobs chev-
ering to 5, mixed brown body feathers, green from
body a double broken but black line from stigmata
body to colorless spreading around feet first male.

Hd 1.4 (variety?) Pale red orange markings. Cn trans. green
faint spotted. S+d + last (between ii & iii) and obj
line distinct, whitish 3-12. Dorsal reddish, spec-

reddish to spin. Same Hd only 1.7. Spur between
leaves using jaws. Would not open against grass
like 781

Diclo

781 A Cal. Feb 22 Cut 15664

between sd-lab, lab-stig filled in with black
brownish mottling on sv fold. S+ colorless
rotches in an ellipse. Reg a little
flattened. Setae long pale. Length Hd 1.7

Hd 1.2 whitish, heavily black spotted except
over D. Cn transverse, black dotted at
tibiae and edge. Body flat, green fur fur
dorsally; white base sd line 3-13 are
double black but one crossing it and iii
feet colorless. Setae long, white

Hd 1.6 (both) just like above but no green,
one faint profuse in dorsal space.

Hd 1.1 DD

Hd 4 Flat before, a high smooth pointed; bottom, well
marked. Hd, a little flattened transversely
guttured a gemmatus but brown stripe. Cn
large, colorless. Brown dotted on tibiae & on lab.
edge and pl. swell, not warped. Tibiae
small brown; setae long stiff pale. Do not see
any Oxytrichinae on thorax or abd. Skin scarcely
pebbled; Reg scarcely annulate.

Cal. 45 70 1.1 1.7 (2.2) 2.7 7/100 (50)

another Hd 3.0 like 2.3 Body transverse green;
white broke sd & stig line; slight whitish streaks
in lab. Space the white lab! line absent only
represented by the large dark brown ii+ii+ii+ii
(ab). Slight whitish mottling S+ Tibiae white
carmine pig. Setae long pale shining brown dotted.
Plate colorless.

Hd 55. Hd 8 like 1.2

But Feb 10 1905. Cat. no. 15496

Diclosgenus reddish-brown

Pyralids on Mulberry (*Morus rubra*). Under a web a tube of leaf next midrib w/ folding together a portion near edge with web.

Hd. 9 rounded whitish green ocelli black, mouth brown. Body slender, uniform; segs mandibular somewhat, 2-analite distinctly, shiny transparent, green from food. Tracheal line white, no marks. Feet slender normal. Tubercles rather large, perfectly obtuse, obscure, normal IV+V. Setae long fine pale. A black dot before II+V on 3.

Another abd. 10th. Black dot before II+V on 3, a small one on 4 and another behind III on 12.

Hd 1.2 Same transparent green from blood and food.

Hd 1.7 Same. Segs not mandibular, setae short. Mandibular, all perfectly transparent blood pale green, no pale. Tubercles large obtuse, from 22 division all reddish to T. Hd with joint red articulations.

Cult Feb 10 1900 Cat no 15495

cover a mass of silken dewy web on top of leaf like ordinary tent but round large with 2+ broken silk strands forming an imperfect tube ^{with ribbon-like strip} at the top. Some water than the others ever absent. Palps pale green without marks. 183 can wiggle up & down tube.

area 3 Cyo Burde Nov 12

Man on *Ficus pedunculata* Palm Beach Fl. Jan 14 1900 Web small on back of leaf under a delicate silken tent; when loose on upper side under a smooth bright web open flat on leaf above the slightly concave upper side, back patches in center of leaf under web which remain on old leaves characterizing shrubby wet ditch as soon.

Hd 6 (a back of leaf) whitish green ocelli black mouth brown. Body slender, green mouth from food anal feet extended.

Hd 8 (on top) all green, some as next.

Hd 1.1 Rounded bilobed, a web $\frac{1}{2}$ to water; mouth projecting, a long dark spinule; antennal short, not palp; distal lobe $\frac{1}{2}$ bulging, labrum distinct, emarginate. Green, ocelli black labrum from edges, setae black. Body a little flattened tapering a little at anal feet and more so post, anal feet divergent, projecting other abd. short; labrum large, bent at 1st L³ exsert like claws. Segs 3-bimaculate, anal annulus very small. Tubercles small, conical, a little elevated 1-2 in line, IV+V. On others in 1st, II+III, IV+V normal. Setae distinct, moderate, pale, but black on the concolorous and mouth cth. & anal pl. Green clear, uniform & basal darker, feet whitish green. Highly likely spans web with great rapidity. Solitary, robust

and Jan 26 1900 Cat. no. 15343

smoothus *dagariella* Buck

Goms X II
17

784

^{integ}
Very similar to 780 but on *Pisonia aculeata* L.
Paler Beach Fla Jan 14 1900. Hd 1.0 whitish
reticulated with brown dot & patches, each
side outer, one lobe centrally & behind eyes
ocell black, mouth brown. Body slender
translucent green from food; eye large
clear, slight black spots & marks on
edge. Setae tubercles distinct. Tubercles
moderate colored, IV+V. On this. i, ii and
iv+v with black dot, ii largest; on 4 ii & v only
as crowded. III whole length with small
dot and in 12 ii also. Skin shiny, translu-
cent white. Setae white, rather long.

Off a leaf & then toward end of branch. The side
opposite to back opaque. Elongate, flattened, dark
slight shiny, with tubercles. Ret. Distinct, linear
irregularly pentagonal. Shell iridescent. 1.0 x .8 x .2 m
Jan 22, hd 1.6 Hd round full, and long. As before, the
brown dots sparse & faint. Body a little flat
eye invisible not colored except a broadish
irregular band at edge. Body shiny, pale
green translucent. Jaws dark green. Tubercles
colored, a black band ring between ii on 3 and
a faint one below ii in 12. No marks, translu-
cent white. Setae fl. invisible. Setae short, white
curled I stripe in a short web between leaves.
Hd. 2.5 colored; body faint green. Brown shaded line on
each edge eye and black spots on sides of 2.
also on *Bougainvillea*, rather injurious

First March 15 1900 Cat no 15780

785

[of also BB Key West, Fla]

Large eggs laid on webs on *Pisonia aculeata*
(Same as BB Goms before at Rubber tree)
Elliptical, a little flattened above & below,
one end larger than the other, but all full
and well rounded. Micropyle (large) end
not flattened. Smooth, fine shagreen,
the reticulations obsolete, just the faintest
trace perceptible on the shell. Not shiny,
brown, yellow. 6 x .55 x .5 mm.
Hatched Jan 16 and ran to young giving about 10 pairs them
hd 4 mm. bilobed, moderate, rather flat tops, very
pale brown a narrow dark line on just edge of
shades; ocelli & mouth dark, not shiny. Body
not very slender, cylindrical, smooth, rounded; dull
greenish rounded back and opaque, no distinct line
but numerous long thin dark pale fine streaks
somewhat confused back pale. Tubercles small, blunt,
ocell black with slight smaller tips. No subovules
iii especially ant., iv post & v a little above without blackish
line, V well ant. & v with separate bands. On others ia
ii a, IV and vi visible.

Jan 20 Hd 7 rounded, flattened before, held out flat
mouth projecting, ant. Histidines, dorsal base speckled
with darker, a grayish faint V-shade bordering edges.
Body not very slender, body seg. elongated, green, the
ends 2-5 and 10-13 shaded with brown, dark and shades
eggs 5 d. 2 post lighter, faint, longitudinally lined but
no distinct lines. Tip pale. Tubercle & ocellae obsolete, in
table fin, short, pale. Shields concolorous & obscure.

Jan 21 Hd 1.2 Round, flattened before, not bilobed
hd free back. White densely mottled with pale
brown, more sparsely about chrys. ocelli black.
Body moderate, cylindrical, uniform. Translucent
white green from food with irregular longitudinal
rows of small white specks. At the tubercles
faintly tinged with brown and the spikes become
dark. Set pale, brown speckled. Marginal line

visible. Spincule narrowly black rimmed. Tu-
bercle small, white; setae very short pale.
Hab. Jan 27 Hd 2.0 mm rounded, very slightly lobed
whitish green thickly mottled with spot of dull
olive green; antennae with long, last joint salmon
color. Body cylindrical, narrow anal prob
large, slightly pointed, in col. all concolorous.
Green, mottled with irregular longitudinal
line and spots of more opaque yellowish green
and a few brown dots and speckles. Tubercle
white, small. Spincule white, narrowly black
rimmed. A group of dorsal black setae below
is in a dorsal line 4-10, measured at 9 x 10; black
spots on s-v fold post, measured at 9 x 10. Feet
green, brown speckled. Setae short, pale.
Beneath as above, all uniformly colored with
distant lines. Next day tarsus all dark
brown, hd. pale like back, mottled with
greenish brown & crossed black hair (just. des.
& Key West form, BB). Tubercle white, the
black patches showing as darker shades.
in all brown Td 3

Hab. Feb 14 1908 Cat. no. 15563

Eupisobona hesitata

Specimen a fine siliceous colony between leaves or folded leaf
But Feb 11 1908 Cat. no. 15509

786

Leaf miners in morning glory, somewhat similar to
779 but with different habit. Main nigula a
series of blotches and lobes, usually elongate and
several parts joined; taking all parenchyma below
epidermis the skin strengthened by web as other surface
is wrinkled. Nasus part ejected bent to leaf by
close web. A series of irregular wavy tunnels.
Hd. flat, round apically, eye black, round brown
[not] whitish; body opaque without a broad dorsal
& lat. dark red band 2-13 and a faint narrow one
on s-v fold in center of body. Otherwise same.
One still in mine like this. C-sh 3mm diameter the
d red strip staining its post. Lat stripe with small
post dots. Setae moderate, pale
hd & glutton rounded quadrat, & rounded above abey
to 2 as hd. is retracted. Greenish, brown or orange, eye
black, jaws brown. Body glutton, s-v fold prominent
abt feet 6-10 short, rather broad, all alike and equally
closely spaced, the crotchet another narrowing in an
ellipse; anal feet approximated, crotchet in a line
the feet small, curved. Segs 2-anomlete, seg
incisus arched, both then and anterior incisure
less opaque than body. A narrow longitudinal lat.
transverse crease interrupted by an irregular ventral
3-anomlete. S-V fold double 5-10, rest convex & the
anomletes 12-13 tapering. C-sh large prettere D. has
hd concolorous, anal plate as large as segment but
actually small. Translucent whitish like ground
glass; ab. coral green. S' glands in 9 large annulate
shiny 4 segments. Group of setae before leg vii, tubercle
with very much undivided seta via centre of line
5 or fold (vi); 2 setae, tubercle close together & low on ant.
part of upper s-v fold a little before spine (IV+V) the
rest are (i) very small & rudimentary; (ii) short round;
(iii) above & before it; (iv) is very oblique, shiny as
other scars. (v) is the only distinct hair. (vi) and (v)
absent in others. Skin finely reticula disperced

Oct 11
1900*Cantellaria rotunda*(?) on *Clinococca racemosa*

Palm Beach, Fla., Jan 17, 1900. Hd rounded, at middle of front pale ochraceous greenish with darker; not shiny; w. 5 mm. Body cyl. feet round, 12 segments with a long (1.8 mm) chest from bearing 1 a vesicle and fine below. Segs finely weakly 8-annulate, shiny. punctate with pale dots. Transverse yellowish, peer four fold. Horn brown black stems with red around them base i in 3³, ii on 6 annulet, iii on 4th, is a little (not 1/2) subely, & very ant⁽¹⁰⁾ and before them IV: 2 sets of leg shields. Setae fine, stiff, straight not swollen, 1-11 dark brown & pale shields & plates concavous, uncornified. Setae few, short white with no distinct green marks. In the tube and in pointed red apical and long awl.

Stiff Jan 20 Hd 8 round, soft green not shiny with black. Body same soft green covered with fine pale patches, having 8-annulate. A faint pale st line. Horn long, brown black, setose stems with red around base, which runs a little up. Line finely paler than pale, thin reddish at tips.

Egg. Slightly elliptical, well rounded, not flattened (very) with no markings. Shiny bright green. Minutely granular but also with obscure linear rather small elevations. 1.2 x 1.1 x .9 mm. Solitary in back.]

Wt Jan 24 Hd 1.2 mm. Squarish, rounded, 12 horn not to width of front, soft green with 2+ whitish granules, body cylindrical, soft 8-annulate, uniform; anal, few large with 3 plates pointed behind. Horn long, brown, reddish at base and tip. plates with a large apical setae. Body dorsal pale granular without line, light green. Spinelets concolor.

[Got a large one Jan 25 Hd about 2.5 (inflated)]

Stiff Jan 30 Hd 1.7 Same horn green, reddish at tip and with a brown streak above at base, with sparse black dots near apical setae still

distinguishable. Light green. pale granular, minutely pubescent. Spinelets 4 & black. On rest pale brown. feet green. no lines, no shields. Horn 4 mm. long segments uniform all of equal thickness; 8V fold rather distinct. 8 annules. (but it out)

788

Mins on Mr. King's planted vine Solanum jasminifolium Palm Beach Fla Jan 17 1900
 Sets together the leaves folding up turns up its side
 and writing by stitching. Has all out, no web.
 Hd 1.2 Body under 2, moderate, translucent green
 tinged with brown shiny. C. & H transparent with
 a blackish patch on either side before edge.
 Body somewhat robust, broad at front of point of
 a bird at ends not tapering. Legs scarcely
 annulated. Transparent, but apodous whitish
 green beneath w/ dense small dark blackish
 green. Tubercles rather large clusters but quite
 transparent, & long black ~~just~~ fat little. Special
 all colors except 1 or 2 which is black. ir + v.
 Foot colors, tip of the dark setae short, pale.
 Hd .6 do in mark but black o-f. dots.

cocoon in leaves of white silk, slight but shiny

Hd .8 do. Hd pale cream. Green black o-f. dots.

Found on Solanum nigrum Vahl. Jan 23 1900.

Cocci on Capsicum frutescens

Conf Feb 4 1900 Cat. nr. 15372

788A on Capsicum. Tubercles more or less black
 esp. in black spot behind each. Others same.
 Hd 1.1 body slightly under 2, c. open high, pale green to yellow green, reddish red,
 on upper 2 lots more brown, dull & pale below, but thin & lots black. C. & H do. Hd
 foot pale do, color do, tubercles esp. those with black except tubercles very under
 a long fine wavy white line in a recurved loop receding from fur 10 to 8 each
 side. Tubercles slightly elevated ir+ir, ir+ir, ir+ir. Segments slightly slanting & in line

789

Leaf mines blotch upper surface gray leaves of
Nectandra willdenowiana Nees. Palm Beach
 Fla Jan 17 1900. very flat & tapering with tunnels
 all down the back (Sent to Busck) Mine Feb 12

790

Mines along together leaves of Engelmannia sp
 Palm Beach Fla. Jan 17, 1900. Leaves uniting
 by wavy silk and once dry get eaten.
 Hd 1.2 Body apex slightly below l, skin colored
 yellowish around dark scutellum; antenna with
 long body with thick ends rounded, not hairy
 ♀ Stp observed 2 annular incisions from Tubercle
 large elevated colors, ir + v in one tubercle
 v small. Translucent, shiny ~~glossy~~ & skin
 not shiny. Foot pale, slightly obscured by its
 opacity. ♀ skin reddish brown. Setae reddish
 pale; feet brownish. No marks whatever
 Hd .6 do. Legs. Broadest division green, not
 shiny Hd whitish
 Annot. 2 hd pale brownish, body all darkened
 except in rings about tubercles - to J?

Hd .8 do

Spin silk like between leaves.
 Conf Feb 9 1900 Cat nos. 15478-80

Feb 9 Conf nos.
 Jan 20 1900

791

DIPTEROUS

Leaf mines in charitonia fruit plant Passiflora quadrangularis L. Palm Beach Fla Jan 18 1900. Linear
 winding mine on upper surface gradually
 widening to eat whole leaf almost (to Busck)

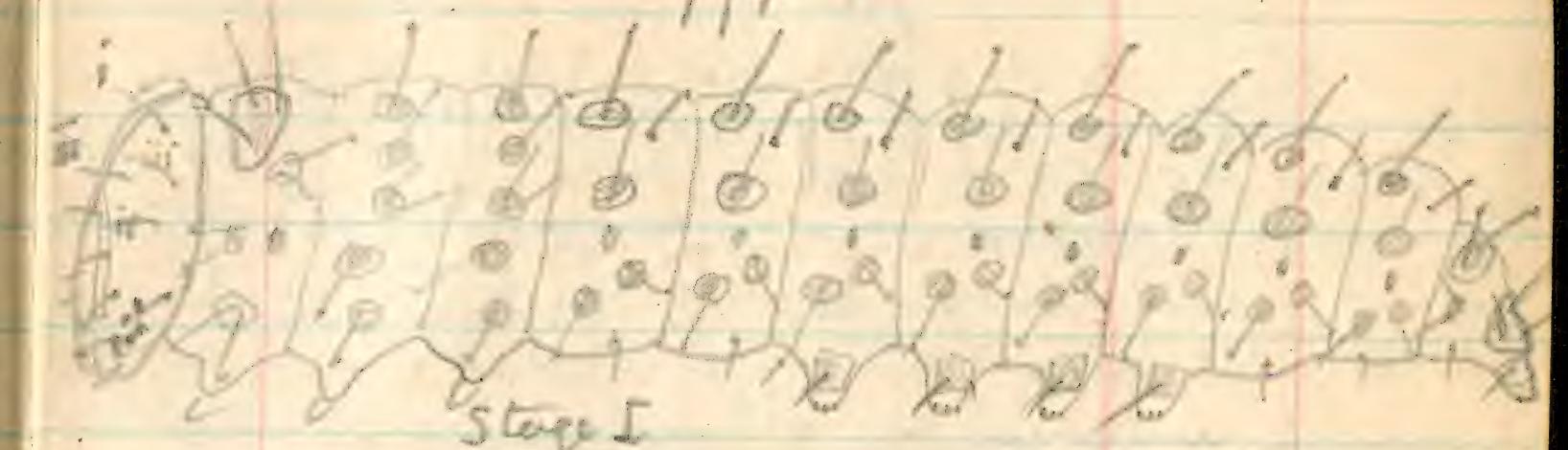
Bottom Feb 12, 1900 792 $\frac{1}{2}$ DIPTEROUS $\frac{828}{828}$ before
 Leaf mines in Eriothrix fruticosa (L.) Palm Beach
 Jan 18 1900 toward the ocean. Linear winding
 mine on upper surface like 791 but more
 tapering & curving contrary to a general trend
 to the left. often with short branches (to Busck)

793

Eugenia bixifolia

Leaf comes on Eugenia sp (different from 790) a narrow slightly wavy uniform (not undulating) nerve about 5 mm wide starts in leaf and runs all about the margin often nearly around on under side; the epidermis & what not has unchanged at end processes to middle of leaf where exserts a large bladder like hollow that finally takes most of leaf to 2 surfaces subtend a little, full-blown green leaf, pale yellow or red. It divides the midrib which entirely separates half a cost side of the flat bladder. Bloody pusts accumulate in this. Base not rounded, not flat, apex under 2, 3 nearly 5 vert, unusually narrow, whitish mouth brownish stains with brown. Antenna short. 2 large black, scaly setae distinct, white, w. 3 mm. Body somewhat flat, though the dorsum is rather well rounded. Entirely opaque white without markings. Legs brownish from old, new, a dark irregular dashes, not annulate. Joints 2 large, the large shield concolor; 13 segments with moderate shield, finely granulated tinted. Tho. feet moderate, the ant. directed obliquely forward, others laterally, 3-jointed, manual. Abd 7-9+13 plus c. 4 legs without crochets. Two feet on 10. Setae white, some rather long, some very small tubercles. It is a large seta but (bottom)
the others are indistinguishable (with them all below) with $\frac{1}{2}$ in. lens. There 2 mouth long sets below 10? (but make no other so satisfactory) (test them)

794



body transparent clear, white slatey, base black with small clear tips with humps.

On head stid with seta after a click way down behind antenna (x?) Larva of *Hemiceras carinatus* on young bud of *Passiflora pallida* Palm Beach Fl. Jan 19 1908.
(to be raised to be sure of species)
OK. Orange at first, but turns quite white by end of II

Sphaerulina leuca var. *luteola* Dryas
cat nos 15499 Spd. 8 rows, slightly retracted
Spun Jan 21, cut Feb 10 [795] Interna with dense white granules
all green flange larger with adhering object
on flange head of *Gasteruption canadense* L. Palm
beach Fl., Jan 19 1908. Green with dense 2d
pointed white granules. Angulus 5-8 project
5-9 bearing is abd 1. is large, a long cone
with many little adhering spines for the stiff
it is small, & larger, VI-VII small. Abd is 6
as so enlarged, this tubercles with angular
tubes on 5 it is III but is the big spine tubercle
is curved away down at base & flange. Spine
before & below flange big & upper aspect. A faint
wrinkle which d. line & sharpens just a flange

796

Egg on Eugenia sp [790 plant] Slightly on back of leaf. Low domed, base flat, circular from top view, & obovate from side. Reticulations distinct, fine lines irregularly boscgued, a little elongate vertically and seeming to be slightly arranged in vertical lines; a slight obsolescence at vertical microphyte. No ribs but faintly indicated between grooving, a suggestion rather than any actual structure seen in some lights; translucent green. D. 1.2 H. 3 mm.

[See de M.] See 841

797

6 winding, gradually widening minn in upper surface, finally a great blotch covering the same parts that the min had previously traversed in upper epidermis detached. Holes like this & similar that have passed the lower side rather extensively and rounded, the hole full, & high to high, & giving roundish with few small tentacles black moist brown like any exposed face. Rids nearly cylindrical, not flat Segs and sharply angular, & a little larger than last & large but all very equal 12 rather broad at first, 13 narrow rectangular transverse whilst 14 green & vein dark. The first greenish. This fact that divided on 2-9. Tax 7-9 (but not 5) cut off on 1st side 10 reinforced with no cleft. Blotch ^{not now & cleft in ant. side} comes on upper side of Cidicodilinae chafem

quadalepense Palm Beach Fla. Jan 9 1900.

(Sent to Busck) Blotch may cover whole leaf.

798

Mins on Euphorbia cyathophora Jan 19 1900
turns up young leaf upper side in and fastened with white sticky web at edges. Leaf get much distorted and folded between veins by its growth when tied. Large clots of the terminal end keeping it closed with silk.
Hd 7 ± rather elongate, pale brown, shiny, two black spots on ocelli and a brown line first or lower 1/2 of cheeks; mouth brown; one dark line on labium. Body moderate, tapering a little at ends, not elongate; colorless hairs present the blunt fangs green, too dark green with concolorous, mol fl. faintly brown. The per black except at base and short, not colored. Tubercles faintly brownish, rather small, the central ones tubercle black. IV+V, iii in 1/2 almost before the spiracle. Segs very obscure 3-anomalous. The minute spiracles. Out Feb 13 1900 cat. no 15550

Tubercles small, a with elevated, round; ii with raised to the setae intersector; iii and with long sets above & a little behind spiracle; i, ii & vi upper or fold, very remote, iv with short sets, & without any ant. obscure; vi with long sets on lower or fold; viii 3 tubercles on outer sides of leg with short setae all are distinct except v which seems closely adjacent though a little past a the other & less with its legs out, maybe it finally turn all picked red, came out & spun next cream

799

Musc. in code for plant Myrsinace florida A. Nels.
 Shining leaves together, pinkish, resting in dead leaf.
 Solitary. Young pupa found in spun up leaf.
 Hd 1.0 ± pale creamish brown, shiny, a black dot
 on eyes before and thin streak post on base & of
 cheek. Mouth whitish. Body transversely
 faintly ochraceous. Shaded shiny brownish
 blue head. Not dark but not conspicuously
 as the body is. Sub-oppo D. vessel round.
 Intercostal small, colarces setae long pub.
 ir + V. feet rather short normal. Tracheal
 line white. No markings.

Sent with red and open in leaf, cutting a
 sector & margin & folding it over. Jan 26.

Same with Feb 11) Possibly = 834?

800

Feb 7 1900 Cat. no. 15365. Thorax with above pure
 white hair costa & fore wings (original in mounting)
 (See also 748 for full description = Mastichodendron Jacq.)

Leaf mines on Sideroxylon foetidissimum L. Palm Beach
 Fla Jan 21 1900. Usually on under surface, rarely
 on upper are a linear, gradually widening wavy
 mine but often curved (recurved). Touching so a
 little ashy & bluish white. (Sent to Busck)

801

Mines on Psychotria undata Palm Beach Jan 22.
 Cut off at middle and fasten to petiole by
 silk with a small sprig leaf at end of
 branch Hd:8 Larva sitting on thick l. petiole
 under fold over part of leaf. Hd round,
 ochreous bright, smooth. Water inside 2. Body
 green, shiny shaded brownish. a dull brown blotch
 d stripes 11-13 running behind. Another much
 longer but hd. the same bed eaten hd and
 moved some distance in the end of the stem.
 Body robust, large for head, thick centrally
 and tapering toward ends. Ant and 2-5
 bearing shaded with brown. Post d stripes
 whitest and edged with brown. (Same to
 water, hd round, not bluish, mouth wide.)
 Brown shade 2-5 faintest just with faint
 d. & last continuous. Tubercles large, green
 transparent, the oldest has tubercles brown.
 IV+V, i-iii not quite in line; on thor. i+ii, t.
 ii+iii, iv+v normal. Sgs folded posteriorly
 obscurely 2 annulate. Feet normal, slender.
 Setae rather long, brown, esp. long at ends.
 Shields scarcely constricted, greatest take tubercles.
 Spun webby cover between leaf and cover.
 Mine may extend whole length of dasum. No tail white
 Mine (Sent Feb 7 1900 Cat. no. 15443)

802

Linear entering mine ending in a several sq.
 patch on upper side of "wild coffee" Psychotria
undata Jacq. Begins very fine, gets to 3 mm
 wide. Palm Beach Fla Jan 22 1900 (sent to Busck)
 Larva (See on page with 744) Cat. no. 15358

Leaf rollers on nettle *Schoenaria cylindrica*
Willed, Palm Beach Fla Jan 22 1900
Roll up leaf wrapping it around back side in
new trying with bands of silk.

hd squarish below, mouth projecting, slightly
lobed, apex wide & straight the para & max
reaching acetab. Pale green just black, visible
through the transparent lobium; lobe mottled
with brown; para & piece smoky black; a
heavy black-brown band or band of cheeks
from jaws to back of head; mottling also on ventle
of both post; w. 18 mm. Body hairless
whitish green, tracheae white distinct,
dorsal vessel dark green on large transparent
but with a broad black lat. margin that
reaches worn posteriorly opposite tubercles 1 & 3.
Tubercles moderate, transparent, those 1 & 3
fairly widely spaced. Hair tubercle itself
brownish; seta pale rather long. Ant. plate
visible transparent. Foot pale
mottled. Spiracles whitish.
Body moderately robust, not
tapering.

Ant Jan 30 1900 Cat no 15351

brown, yellow finely varn
color as seen & last stage
& all 2 forms, dark yellow
& chocolate brown.

Spur Mar 7 (Cat No 26) (805 cont)
Other came out different colors. Bright yellow, mouse
gray, chocolate brown, orange red; the color always
residing in the distal 1/3 of the hairs in the spinulae
part all heads and bodies alike in color. All
venae white. Setae dark yellow & chocolate

Psychid? case on *Pithecia formosa* Palmer
Beach Fl, Jan 22 1900. (See Specimen)

was occupying the head. A slight, dark-colored
tuft upper side 1/5 as long as other hair. Hair
brightest near reddish centrally, the end and tip
without black tips but all pale. Hair rather long
intertwined, the tips formed by 3 or 4 black tubercles in a
terminal group. Shape tubercles coniform with hair
tips like a thorn hairy gall on back of head.
Head Hd 1.5 Hd 2.5 rounded, scarcely bilobed, pale
whitish a large, thick U-shaped, transverse indusium
the D and thorax not a short spine at side below.
Antennae rather long, with small pale
pores flattened ventrally, rounded, thickened at 5
and a little depressed at the ends, cuticle covered
by the dense hair. Palps yellowish, scarcely trans-
lucent, parts concolorous, no marks whatever.
Hair a dense brush all over regular, pale
yellow, spinulose, the ends slightly brown tipped.
On 8d vent 1/3 is a long slender white pencil
of 3 or 3 hairs, rather densely feathered-spinulose
but i-vi all large and rather contiguous, rounded
hemispherical, the single tubercles of 3 or 4 thick
slugs transversely. No trace of tuft on 5. Long
white hair here and have been lost them and
was all yellowish hair, stiff, no even a dense.
(one intercalated) Hd 2.2, U-shaped brown, not black;
hair yellow, white hair slight & a faint brownish
tufted tuft on 5) becoming dark yellow & not a stage
Md after 25 Hd 3.4 ± pale yellow, a diffuse red shade over
the face & legs above, face & piece gray & some gray dots are to
yellow, epistome and antennae white, belly brown; jaws
pale at tip. Roof as bone thin of crown has a bright
yellow hair over spinulae, the end points not tipped
to a slender white pencil and for 8d vent 1/3 of
body and pale yellow the hair without scales. The 8d pale

Calc 46 65 93 1.33 1.9 2.7 3.85 70

(2.16) (2.1)
Cert No. 15810 Empsendrum floridum exp

805

nos 790 n 793 Engelia procer

Eggs on back of leaf of Engelia sp (has 7/3 galls n 11)
Notodinitid? eggs laid in a mass not touching
but a few scattering. Slightly over hemispherical
but flat. After very slightly produced suggests
the coriaceous shape. Clear yellowish green with
orange spots along the edges; others opaque
yellow-green. Retention small, regular,
rounded hexagonal, slightly raised. smaller
just above whereof a forming a ring of several
cells with one central one. Microyle eccentric, a
little to one side of the vertex of egg H. 3. Diam 1.1 mm
Hatched with red squashed, rounded, slightly lobed,
sharp pointed pieces heading away inwards. See no
2. Anterior annulus primary setae short thick
irregular. Iij both rows with setae, in middle lvs, is the
2 ocelli, 3 below each ocell (or exches), 2 holes
when approaching above antennae. colorless,
yellow patch around; green base, well back w 4 feet
body whitish with large tubercles and black
prominent white hairs. Segs short, contracted; br.
occurred distant. No shields. Tubercles i-ii & iii
on band 4*, ii and iii on 11, 12 & 13 and dark ochreous.
all else transverse whitish with faint yellow line
body base white. Legs colorless, anterior somewhat
and few divergent. In fact, it's small, remote part.
is long, vi dark. In abd i small setae, w 8 feet
other small, v large. Setae single; no supernumerary.
2 small anteriores with weak setae. Hd. 1 first flat,
has two peaks, esp 3 & 4 rather prominent. (At Engelia)
4 distinct raised into a flattened somewhat fan shape and
an elongated green from prod. Ochreous tubercles fade to a dull color
& become contracted and 3 or 4 hundred dep.
(but not same as following). In III some have a little
black tuft 15.

Others in Engelia 790 Nos. 6 & 7 with flattened, 3-5
large, 2 retracted & weak Hd. pale yellow with
strongly lobed, colorless round brown. 13 annules
had with moderate spine-like warts with rather
dense stiff white spiniferous hairs. Ova of 2-4
length, very few or in the skin isolated, greenish.
1.98 mm with punct. glaucous greenish. On 3-4 mm with
above 3/4 warts, discolor, now, greenish. On abd
i small, village, small, iv about, v small, v large
at the boundaries greenish or faded. No anal plate
but with a flap tail rather slender. pale with
colorless points. Intern whitish - the sides whitish
with pale brown. Deep minn about tubercles II &
3-4 and between ii and iii of 5, 6 & 10. On 11-13 the color
is more uniform. Long hairs are very downward
pointed from II, at 12-13 changing from brown to dead
orange red. Skin smooth, not shiny.

Hd. 9 square. Hd. 6 & rather high. Small button
a min spot with a spot of greenish hair, well
blown, pair of pointed brown. Most annuli, brown
colorless except 3d & 4 which are min trapezoid
11-13 which are large. Most i small, ii still longer, 13
are v small, village, greenish. Color as before but
the greenish shading covers the dorsum from 2 to 10.
Hd. 10 & 6 Hd. 1-3 rounded slightly lobed, 4 & 5 retracted
pale testaceous, just black at tip; well black 5 in 3
in back behind antenna. Red, blunt & thick like
Parvogia. pale testaceous min trapezoid esp in back
tubercles. Hd. 11 & 12-13 very rounded elongated
slender. Hd. dense stiff. Fleshy with black tip.
Annelid; a black diffuse & pale 5 hair from
and even 4 II black & black. A slight circular node on 10
base of a rusty brown green fur skinning w 8 d. 10-12. setae
rather diffuse.

Hd. 10 Hd. 2-5 Same, antennae rather long. Body
in own, nearly colorless, not faded brown to brown
traps the front. dorsal markings near olivete brown
replaced by very dense hair for large diffused black
bands 4-6 and 9-10. Hair brown & not
sharp black tips, all even w a few very pale (bare?)

*New thread grows from tiny apical opening which
is at once closed with web. The gland & remote flagellum
project, while apart from prothoracic feet.
Then bit out a large hole at top gall infested with others
Thysanopteris ^{2nd generation?} 806 Out Apr 29 Cat 15854

Gall makes in old stem of *Randia aculeata*
Palm Beach, Fla. Jan 22 1900. Gall a thick
swelling in the heart wood about 2x thickness
of normal stem. Infusion with normal bark
and no opening. Within a tube large as hair
about 25 mm long, moist, no flow of a distinct
yellowish sticky fluid in bottom, wet. Gall open
in part, adjoining. Gall eats a thin place at
apical end & spin a little web. Old gall
passes a tree and do not kill the branch.
Infusion light brown, a little darker at the ends.
Hd very full and rounded, & not above reddish
brown, not depressed nor elevated; hd not
globes all the surface level with surface.
Higher than wide, antennae moderately ocelli
arabell. Dark brown the outside pale. w. 1.5 ±
body cylindrical, near uniform. Legs. Ground
color brown, S-V legs distinct but not
prominent. Tubercles common, shiny brown,
moderately raised setae, though there are a few
near base and S-V. Tubercles small, irregularly
shaped. ir + v, vi present, vii without which
conification in shrub was removed in 1/4
approaching, ii + iii. Spiracle first color with
dark lines. Not prominent. Shiny; abd out
complete circle of acetab arms flat plane
and small central dark spot. Skin fine
granular, rather opaque. Tubercles shiny.
ir and v are quite remote, ir the higher but not
on one tubercle. Actual bar tubercles darker
than tubercle plates. Shield scarcely conified.

807

Pyramidal webbing together leaves of *Chilococca*
racemosa and pinking. Resembles 782 but
more webby, not stitched.
hd rounded, peracipital piece reaching vertex
a little flattens before; green, brown blades
n lobed; ocelli neatly black, mouth brown.
w. 1 ± Body moderately slender, seg. oblique
3 annelid, ant. annelid small. Transparent
light green, no markings. Shield transparent
tubercle small, somewhat elevated color
less, normal i + ii, ii + iii, iv + v.
Spiracle small whitish; feet pale normal
setae moderate, white. A lively backward
running pyramidal.
Spur between leaves with white with
Out Feb 19 1900 cat no 15485 (Brown Tortrix)

Cucullia ^{young} ~~new~~

808 (see before 741)

Find me in woods along King's Run
water staining and pale brown
containing fine frass. S ligat
bladdery. Large gone with
white cocoon open in
next leaf so probably it. Out Jan
Leaf miners on *Randia aculeata* Palm Beach Fl
Jan 23 1900. Min. a upper surface marginal
or becoming marginal, yellow, of large blotches
with or without a tiny tapering tail from
egg puncture. Found on County Road (all bad)
Epidermis with succulent. 28 1900 Cat. no. 15348

809

Mines between leaf surfaces, the
mine visible above and below
on Cordia ferruginea Sweet "breakage"
Palms Beach Fla Jan 23 1900

A rapidly widening mine, brown,
the tail black, in perfect in
a case cut out at the end.
(Sent to Busck) Start from midrib.

(See after 742 for note on larva)

810

Mine on upper surface of 809
plant; the old mine shows
partially below. Mine gradually
widening, starting from the margin,
and convoluted and streaked
finely toward center (to Busck)
Jan 24 got a live larva. Green, wrinkled with broad
shaped claspers, the feet 3-4, total 6-11; total 13 button beneath
in fact small. A black patch written behind head.

811

Large blotch mines on upper side
of Chionoclea racemosa Palm
Beach, Fla Jan 25 1900. A long
brown mine w/ slightly widening
and suddenly tapering to a large
blotch that may cover both old
mine (all bad) (Sent to Busck)
got good larva Jan 25 (see after 743)
(Sent Busck 4 Jan 28)

812 = 834

Widening leaves and eating in manner of 780
and 790 but on Randia aculeata. Only pupa
found Jan 23 1900. On spring of old leaves.
Jan 26 1900 cat no 15434 (Same as 834)
In early spring larvae had round case with
the Randia. Case is not a Randia leaf
but like 734 (plans)

813 [See after 750] (Cat 15779)

Feb 14 1900 ad. H. 6 flattened, a & valves above
full and bulging; brown between, scutell. black
body long, slender but uniform, flattened, sy.
intestine not strong. Pale green dorsum,
just dark green. Eye green back black lat. rim
a large black dot ii 1 ad 4; and gl. pointed
darker marginal post. Tubercles numerous, black
in 12 larger; II + V, vi ad viii round. Setae very
black, thin & pale white unspotted.

Leaf stiches on 809 but plant Cordia ferruginea
while the overlapping parts of two leaves with
stiches. Same with sides in hairy patches.
Leaf turns yellowish and is usually moist from
dew or rain. Scales like etc when kept by hand.

H. 3 rounded slightly lobed, per pro 2 0 3 to valves;
lips full; antennae, mouth dark brown, scutell a black patch
body ad pro 13 scarcely small, eye folded and tub.
not upright nor distantly; set gl. distinct; incisure
well marked. C. H. long. Shiny, nearly rectangular &
post. corners a little rounded and feet not com-
piled. Feet round, abd slender but stout and not
a single row narrow tubes without. Thorax white
a yellowish, pale green. Head pale. Tubercles round, a slight
thin ring about them tubercle, i dotted to ii, otherwise,
it has been seen a few post. serrate, vi post on lower part,
vii a large one and the rest in it separate, II-III, IV-V
the middle, given complete, 2 other scales round

also are other obsoletes. Species from minute.
Central seg long drawn out; thoracic c 10-13 contracted.
A fine minute for this plant. ~~Aug 26 1900~~ Hd 1.7 (shhd 1.05).
26.43.61.1.02.1.7^{1/2}. 814 (See after 833)

Racheospila saltusaria Hulst Art Mar 28 Cat 158159

VA Scours ~~IV~~ plant. *Condalia ferruginea* Greene.

Palm Beach Fla., Jan 24 1900. Hd 1.0 flat before
the lobe. Indent into long tend to connect bases
light constricted centrally & rather high. Dark brown
gape pointed whitish and with pointed stroke over
lips and esp behind them; mouth black brown.
Body slender, uniform; a large single green
central stripe in 2 with 2 apposinately dark brown
bands on summit, a with recurved intervals,
and fl long, pointed behind, exserted before; hind
q anal feet large, Δ , exserted below-post, feet
large small, apposinately to anal was. Big stiff
dorsula when drooping dark green, very faintly
marked white points posteriorly; a series of short
brown hair intersp dashes, first coarse, coarsest
of a darker green stripe; in 10-12 then all contract
to a common row; anal plate green; thick wings
brown, with dusted. The anal feet brown. Tibia-

815

Myriopholoid larva, probably *Begonias atlantis*
on *Parietaria diffusa* Forst. Palm Beach Jan 24 1900
In burses of leaves or tops of the tiny plants.
The plant is a nettle & they are surely Stephen's
Paw a butterfly on passing by or its apparently.
Also on *Cochlearia cylindrica* but rare.

Over Feb 11 1900 *Begonias atlantis* 15536

816

Blotch mottles on the upper surface of the great
peach bean *Canavalia obtusifolia* S.G. Palm Beach
Feb 24, 1900. Provided from blotches off the plant
a greatly extended onto white zone. base feet
with square laterally produced seg. & pointed mouth
(Sent to Busck)

816 $\frac{1}{2}$

Blotch leaf mottles upper side of *Opuntia*
ca sp. Palm Beach, Fla. Jan 24
1900. Large pale, irregularly
lobed blotches, the bases in
line approach a lame to
end lobe (all empty)
(Sent to Busck)

(Reduced)

DIPTEROUS

817

Witch leafed berries food

Feeding similar to 801 but in Edible sp?
Palm Beach, Fla Jan 25 1900. Eat berries w/
leaf, eat first a bird and rest is a case of web
out the whitish excrement with remains of leaf
Hd 6 (to tail) slightly bilobed full, round, slightly, the
gape broadened twice to vertex; one dorsal large
etc. (ii) the rest minute; pale button. Body short
& robust, seg. 3 widest the rest are very small.
Gibbous slightly elevated, undulated, colorless. On
the last 3 b. tail II b, IV + V; n abd IV + V. Hair whitish
brown. Green, a faint orange d. line and trans-
verse on post. undulated on each seg. a broad
faint whitish band. Shaded crown
Post Jan 27 Hd .85 set green like body. Same, the
last stripe very obscure. A hundred of little tiny
small post. Later lat. whitish stripe sharp
abut on spinules, diffuse below, minute body
brownish, obscure except toward the extremities.
Dale not gone, all green like a bit of the stem
with the whitish lat. shaded band. Sharp arm.
Over Feb 13 1900 Cat. no 15592

Blot. mines on upper surface
of leaf of Pisonia aculeata
grows at midrib and under
rapidly, ending as a large
blotch. Frass contained.
Some escapes. (One good
lava sent to Knoblauch as "784-5")
3rd another Jan 26. 1st small
flat, body retracted. Body flat
but nonuniform like 811. Just
2, 3 large 4-5 times older, the
smaller & smaller, tapering first.
Translucent testaceous, edges & corners
dark brownish; first green w/ spots!
Set normal. (Dist (Bush))
apparently

Case cutter on Eugenia 7908b Palm Beach
Fla. Jan. 25 1903. Start
in substrate & feed at
vidua to blot. When
case is cut. Case with
slight but constriction
(as with too strong in fig.)
Resembles 819 but case longer
and runs straight in leaf.
(all this Jan 25) Set a good one yet cutting
case Jan 29. Cutten straight & smooth
not nonuniform, colorless but retractors apparently
dark, a dark spot behind it. (Sent to Knoblauch)
Dist (Bush)

Separated at first ditching leaves, finally in a
line of long bent top side in with loose
silky web. Structure same as BB from
Miami Fla. Palm Beach Jan 1903. All
transparent green, apex of lobes a little red-
dish, ocelli black and a black sd speck
in front 2. (To be inflated, but, compare with BB 692)
Ipomoea spp. (The one kept in heat was parasitized)

Egg laid by ♀ "orange" Callidryas agarithe on 797
plant Pithecellobium quadrangulare young
leaves Palm Beach Fla Jan 26, 1903. Sample
cylindrical, the base scarcely narrowed
but, near a little larger apex and
tapering to a blunt slightly more
cylindrical point. 10 vertical low with
some base to apex, smooth, but joined
by obscure, regular cross striae. Basal
D. 4, height 1.0 mm. Silky white
with pale yellow tint. Both orange red
(One smooth egg seen laid + 2 others + 3 larvae in same plant)

It 2 mm entire smooth surface marked by
impressed lines, 3 moderate; orange yellow, ocelli black.
Body yellow, slightly greenish from food, and edge of 2
oblique. Cylindrical, face blunt, narrow; no plate
seen finely ± 6 annulate; 5+ folds slightly. Setae white
dotted, stiff, tracheal oblique, dark; i drew to it but
curved forward; ii curved upward; iii or a little less so, rather
remote, blunt, not much curved. On them in it is a
seta (ii b apparent absent), v present, no subpinnae.
The setae are uniform white tubes with tapering on tips
somewhat obliquely cut. On setae condensed into
a group on and edge of 2 - plate nearly absent. Pre-
opercular notch with 1 seta few blunt, 3 or 4
contacted not with. See fairly otherwise with dark point

	Sample
Laid Jan 26 1903	
Hatch (spotted)	
Stages	
" I	
" II	
" III	
Breeding place?	
Obs Feb 22 1903	
Cat 15665	

Shape as to entire big cases, i. brown head, green middle
 with punctures & bright d. like a general here are
 some big cases with 3 irregular white spots on each side.
1900 Row yellow green tinted, 3 moderate; setae
 short white with 10 and 23. Ocelli black, jaws brown.
 Body cylindrical, seg. neatly 5-annulate, 3-8 folds
 rather distinct. Setae 1 stout, short black with distinct
 dots at tip; 2 very short one pale, in front, it is a little
 larger than 5 or as before, a second similar seta beh.
 on anterior and on vertex 4-5; several more on top, all
 short, pale at tips. Color pale yellowish, the food showing
 faintly greenish. Skin with fine brownish granules,
 both on rows soft green ocelli black covered with 2
 pale dots. pale green, 6-annulate, a faint yellowish
 zig-zag is in large black glandula, not lost
 in dense fine hairs, pale 2nd row, black densely
 no glands. Cylindrical narrow; feet moderate
1900 Hd 1.5 mm Row, mid 5-6, 5th 6-7, 7th 8-9, 8th
 10-11, 11-12 12-13, 13-14, 14-15, 15-16, 16-17, 17-18, 18-19
 19-20, 20-21, 21-22, 22-23, 23-24, 24-25, 25-26, 26-27, 27-28, 28-29, 29-30, 30-31, 31-32, 32-33, 33-34, 34-35, 35-36, 36-37, 37-38, 38-39, 39-40, 40-41, 41-42, 42-43, 43-44, 44-45, 45-46, 46-47, 47-48, 48-49, 49-50, 50-51, 51-52, 52-53, 53-54, 54-55, 55-56, 56-57, 57-58, 58-59, 59-60, 60-61, 61-62, 62-63, 63-64, 64-65, 65-66, 66-67, 67-68, 68-69, 69-70, 70-71, 71-72, 72-73, 73-74, 74-75, 75-76, 76-77, 77-78, 78-79, 79-80, 80-81, 81-82, 82-83, 83-84, 84-85, 85-86, 86-87, 87-88, 88-89, 89-90, 90-91, 91-92, 92-93, 93-94, 94-95, 95-96, 96-97, 97-98, 98-99, 99-100, 100-101, 101-102, 102-103, 103-104, 104-105, 105-106, 106-107, 107-108, 108-109, 109-110, 110-111, 111-112, 112-113, 113-114, 114-115, 115-116, 116-117, 117-118, 118-119, 119-120, 120-121, 121-122, 122-123, 123-124, 124-125, 125-126, 126-127, 127-128, 128-129, 129-130, 130-131, 131-132, 132-133, 133-134, 134-135, 135-136, 136-137, 137-138, 138-139, 139-140, 140-141, 141-142, 142-143, 143-144, 144-145, 145-146, 146-147, 147-148, 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814-815, 815-816, 816-817, 817-818, 818-819, 819-820, 820-821, 821-822, 822-823, 823-824, 824-825, 825-826, 826-827, 827-828, 828-829, 829-830, 830-831, 831-832, 832-833, 833-834, 834-835, 835-836, 836-837, 837-838, 838-839, 839-840, 840-841, 841-842, 842-843, 843-84

824

63
63
63

Linea gradually indigo
min. above toward end
contacted on upper surface
of old leaf of Coccoloba
floridana. This also palm
describes 810 in general
habits. Palm Beach Fl.
Jan 27 1900. Hd pale brown
green dense. 2 l. 3 wide
green, segs small, subequal
movilism. A dorsal vein-
like brown stripe triangular
widened in the center of last
segment. Rest pale green
and darker green. No faint or
2 white, but one in 3rd. All feet short 6-11, no bands
more or less. Came out of nest & walked.

Out Feb 12 1900 cat. no. 15537

825 = 794

Butterfly egg on Passeiflora quadrangularis laid in center of
young leaf above mid or end, i tended as with
794. Very, probably older & by plate black hair with
granular tips not granular, yellowish. 4 w
a large high rounded & 14 ribs with sharp
edges becoming few large cells at vertex
microyle faint reticulated & 1.2 D. 6 mm
the size like Leucostomia. Spine a band and
a very black orange with a white shade. Turned white
with slender spots = chevron.

cale. .34 .48 .69 .98 1.44 2.0 7

" 27 .45 .76 1.26 2.1 6

Mecocerculus nitidus. 826 ~~versus~~ ^{to} ~~XII~~

Loopers eating young leaves of Coccoloba floridana.
Palm Beach Fl. Jan 27, 1900.

Hd. 3 rounded, not bilobed, brown-black, and shiny.
Body apical side slender, feet round; parts of seg
between 1-iii being too large, collared, 2-annul-
late, with segmented part smooth; ends broken
dark brown, almost blackish the slender inter-
seg part 5-9 pale and whitish with d. 5-6
brown lines, in that body lobes obscured dark-
brown banded. Tarsals small, setae black & off
in (two) bunches; i & ii all separate, no otherwise
a small or trapezoidal esp and rounded anal fl.
[others. Hd 1.4, hd 2.0. ~~With~~ 4 lobes the lobes folded
into cones with sharp tips curved forward, and
long and pointed obliquely forward continued; 5-
7 front, cheeks rounded quadrato-volar, round
bulging, blackish, dotted pale, in stronger
lobate black or pale 4 lobes brown. Dorsally
covered with short black, 2nd pale. Body nearly
circular, or for distinct and ordered on the
eggs. A pair of short black Vex. Lumb. on 8
1/2 in posterior 1/2. Cteni 8 the large. Feet
normal, ventral part of 10 pretended. Body all
densely covered with fine 2nd black pile from small
black tubercles. Dark olivaceous green shaded
a little with brown having no over the contri-
acted end points, a slightly elevated black spot
in position of iv on 5-7; a series of fine median
vertical dashes. Segs very obscure, 8-annulate.
esp in center of segs d. with posterior lobes. Spin
color white black ringed. Feet brown.

[2.0 increase except that the lobes & hd are more
rounded, the points represented by a slight elevation
on upper front side. 2nd setae even more distinct
with rather large basal tubercle, the elevation
on 8 and 9 almost plain with them.]
With small green tubercles a green disk

Spec Jan 28 Hd. 5 Moth body pointed with thin
pointed wings forward; antennae impressed. Dull
dark black-brown a little mottled; 2^o band
present, thin black. Body slender centre of seg.
a little swollen; all dark blackish brown
with an olivaceous tint, under the hairs obscure
fusiform longitudinal lines darker vertically.
Moth is on elevated dark rounded spot.
Eggs centrally usually shaded dark. All covered
with fine short dark 2^o hair from black tubercles
which is protruded. Seg. giving turnings, are
essentially as in the mature larva though darker.
Spec III Hd. 70 with character of mat. Blunt
rounded bump is on paired post. dorsal are a
8 and one or 9. Dark, blackish brown, a little
lighter greenish ventrally. Popped off the dark
2^o tubercle. Fin 2^o yellow black. Head point distinct
ends 2-4, 10-15 small black. no bands no lines.
Spec IV Hd. 1.2 over, 1.4 max width. very dark
at first as before. Spec V Hd. 2.1 darker than
the older ones, shaded with black.

Spec VI 15/903 Cat no 15583

1st egg from this moth Jan 16. Cylindrical and
rounded, one end a little more tapering than
than the other, a scarcely perceptible flattening
of the cylindrical base due to leaf it laid.
12 near low ribs receding almost to the smaller
end, becoming dotted at turns above; stopping
abruptly at the larger (microplan) end in a circle
of large quadrangular, indistinct edged cells at
the same angle of which are a circle of white
dots, one for each rib. Between these the microplan
is irregularly coarsely reticulate. Ribs twisted
creased with a double alternating row of white
dots. Ans. striae fine, 11 faint. Fin dark green
wb and circles of dots appear white. .65 x .55 x .5

827

Eggs laid by ♀ *Dasydes bistralis*, night
Jan 27-28 1903. Cat. no. 15349. Found only one
very large egg, separately; egg & cocoon of moth
body. Cylindrical centred, high side wide, both
rounded. Base less sharply rounded, ± 30 low
natural ribs, not strongly marked and curv. &
very slight may within a ledge; no cross-
striae, no rets. Dull cream color, not shiny
later with irregular brownish pustules, D. D. H. T. 0
almost quite spherical; ribs almost flat. *Calculation*
Hatched Feb 8 Hd. elliptical mamma above, vertex
wide 2: 4: 3. Posterior antennae darker, 2 bands
most lighter blue brown blue & east blue
11 wavy. Dorsal dark brown with creased smoky
blue; w. 6 mm. Body slender uniform, a trace
glutinous, fat on 9, 10, 13. Dorsum not cerebelli.
9, 10 fat very close, small long divergent, three
large colubres. No spines. Whiskers white but few
not blue and a dark slate blue all over
spots - 11 mm including fat of 13. Fin one 8d (5-11)
11d, 18g (iii-18) 21mm 5.5. Tubercles round
black normal on microplanus. Egg shield of 10
are whitish with 7-8 pale yellow marks below
one broken shield of body 8-11 in width. 8-11
jew broadly whitish. On striped but more intense
the poor green and become gray the whole length.
(See green in *Spartina juncea* Willd. Also in N.)
(all dried apparently stuck a pin by deer or night. have
been molted; without trouble raising on good soil in sun)

single, hair
paired

C for Buck

N.W.L. 1900

828

(792)

Apical mine on upper side is elliptical but another on the under side and as for 792. A lower trisulc, with several ridges but curved about, finally ending in a blotch which usually takes up part of the old mine. White, rimmed above the low epidermis slightly raised, membranous. Only a few good and some others.

(Sent to Buck Feb 15 1900)

Cann not shut & think, flattens, all dark red the incisure, except 3 at contact yellowish white. And before March 27 and get mottled. Cat. no. 15812

adl. 35 50 .72 1.0 1.47 2.1 $\frac{7}{10}$

829 (cont)

Mine ad 16. (Std ad 1.5) Hd 2.1 rounded, neck, under 2, & about 3, or more to width belt not flat, lobes quite full. Pale yellow checkered with angular spots of very pale brown, also marked with these color spots and along m. surface. Dots white. Neck centered in a black shade; mouth brown, otherwise moderate. Tubercles minute brownish. Body slender (fig 8) flat as before lined. D 3 pale yellow alternating with 2 brown, black, white or ad; sd 3 broad shiny brown all. with 2 pale yellow rays narrow ones. Stg pale yellow across middle with black rimmed spiracles. A yellowish line along IV & V with faint brown above. Gaster pale, greenish bluish. Tubercles small black in line or II slightly raised as before. vi distinct, VII & VIII joined in white or tan, yellowish green centrally as green with brownish post.

• 6
•
•
• 9
• 10

Bones in young stem of Lisoma aculeata Palm Buck Jan 1900. Sp. right out above nose; young leaf & into stem. Leave a round hole first which grass is ejected. Cylindrical, seg. short and rather thick, faint & transverse. Transverse costae whitish, no marks. Tracheal line white, & joints dark ochreous. Tubercles small brown black feet small pale except joint which is broadly black rugos. Anal fl. large black, also extensive black. ~~Post~~ plate b 12, including i - v are spread, 12 is small and broadened, 13 does small, scarcely divided by suture, skin slightly shiny, number greater. IV & V approximately separated by about diameter of tubercle, is closed. Cx elliptical broad, black. Hd round, free, slightly lobed, higher than wide, black shading to brown below, & large well black. Ia, it separates on 3rd. (Sent Feb 11 1900 Cat. no. 15523)

829 (cont)

Body slender nearly uniform light brown striped. Dorsum brown yellowish with odd small brown tubercles colored brown; a purple line from fin along I-II narrowly separated by a narrow brownish dark line (ad) through double tracking. ~~Wings~~ ~~Fig 8~~ II & III is a dark brown and continues on yellowish dorsum. Guts by fin yellow, magenta, above line below it; 2nd fold pale, buttons; midbutton a purple pale reddish band in brown. Which black face pale. Spiracles black brownish. Sets on legs pale. II a little down to I throughout; IV & V separate & almost hidden. Small & a black dorsal and anal. Vi not much below it but same post. VII or leg base in a triangle. Shield perfectly circular on the anal pt and anal last in with shades with purple. Cuchets & white tufts & soft. 34 52 78 12 1.8 (all max ad 15) (See before 828)

Eggshell flat, code style, & developing meat irregularly reflected. Shell white. 1.8 x 1.2. Egg dark ochre, tinted with darker areas. About as fast as code egg. No markings, 1 whitish line. Embryos white.

Ornithodoros cat 15800 829 Stericta monostalis Hult

Hypopygium? on old leaves of Neotomaea willdenowiana Palm Beach Fla. Jan 28, 1900.

Resting not straight, in the center of a loose open web among the leaves. Very common but all gone but this one.

Hd. 8+ held out flat, flattened, D rather high, face brown, surface brown, but on sides of lobes & black line with 4 alternating white ones from mouth backward, continuing line of body in normal position of head. & a whitish vertical line II to median nature. The feet long, black, pale ringed. Body slender, nearly apical; feet small, normal. Seg. IV-VII not strongly marked. Gaster dull green, dorsum lined with brown-black & white, lines of both colors of several widths. Pale line yellowish white except on seg. IV which is the last one & greenish. Burn this dorsal. Seg. I-II, lat., especially (III) & subreticulated. Tubercles small, black; setae moderate, fine. IV and V separate but approximate, V direct to IV and smaller VII 3 setae in leg. VI OK. Two very thin faint red lines, below IV+V and across VI respectively. Subcenter of dorsal dark.

Was 1581 in an old red leaf ditch but no web. Hd. brown, but brown and faint hair back from well brown body greenish, uniform meshed, fine hair hind legs red. Hd. 7.8 Hd 1.2 Same but poor markings on sides of body. Some black hairs. Body nearly lined with yellow green and from black as before but the other half, brown, sharper and much wider than the pale intervals & which have become linear. Also 2 more lines below 5th fold. ^{the 7.8 Hd 1.8 yellowish brown, others mostly white} ^{in line, may ends as disc on sides. Setae} ^{center & tip black dark red. Rounded, D high, apex little under 20° in}

830 Our Cat 15689 Feb 28

On very young leaves of "larch" and Amplis floridana, Palm Beach sea Jan 29 1900. Spins up a leaf neatly leaving a round hole at posterior. Setae not out, feels a coarse web & looks like house. Hd. round, feels a broad, tubular, almost cordate, narrowing below and the mouth brown; antenna moderate, claspers with tip but the outer spine not depressed. Many dark smooth bristles; setae pale in 4 are very elongated, very pedicled 3 broad, colorless, yellowish, few green. On wings colored pale orange, the feet with long pale. Tubercles minute, setae small dark. On this is small, except from it, II & III from same. IV-VI on abd is as close approximation to last as small. IV and V black short normal and VII ant-antennal. Abd tubercles with slight ventral rows about four tubercles. Spine? Hd. 6 mm. Gaster all rounded red except our edge & a row of pale hairs across a leaf brown.

Our Cat 15707

831 Very large dark red like them leaves, much green, no white. Spinning a delicate web over w/o arms on very young leaves of Amplis floridana, Palm Beach sea Jan 29 1900. Spins nests on stem or leaf w/o a web. Hd. 8 slightly bilobed, body pale, D high & broad, green with black mixed brown. Body slender, cylindrical, feet normal, eyes opening. Legs good, moderate for fold rather prominent. Well developed complete. Eyes, brownish, dorsum heavily shaded dark from anterior fine dark red scattered hair becoming more sparse and dotted and only faint on which looks green. The dorsal ground color appears as small size fine longitudinal irregular lines. Tubercles small, broad, pointed & it is out w/o hair, appearing like distinct a or fold. Antennal; VII a to base, a group of 3. On 3 is a sharp hook & a large oval elevated deep web tubercle. Setae few pale, no plate.

832

Leaf of Eugenia 790 sp folded on back side with a short top - a ball of hair within and a fusiform white worm shape obliquely like a burr-moth.
(Bob 2 Jan 29 1900. cocoons emerged)

Hd. 6 Do. Hd. faintly brownish, Sector of D brown and thin on first edge of ventral lobes blackish on large, faintly testaceous, transverse. Body transverse banded with pale slate on sides and dorsal of 10-11. O glands brown ringed, as if segmented. Anal plate transparent. Hair brownish black; IV+V. Spiracles black; dorsal hair white, first pair. Setae pale, moderate. Test narrow, legs obscure 3-anomalous. Hair minute, dark granular. O glands brown white band. 100/10. 372 anal & spine Hds. 6 glands dark brown, body very white and thin bristles, postanterior dark, submarginal. Legs (Kruske)

833

Resembling 800 but on Schroffia arboreans R+S. Palm Beach, Fl. Jan 29 1900. earliest hairs near the leaf, a linear crooked hair, often somewhat extensile, the hair pushed out the entrance hole on wide side all colored, pale green.

Later hairs white (except on leaves, fine, stem in - and purple made from part mixed with white silk).

Hd. 6 pale cinnamon, minute bands from eye black, a curved black line behind it a horizontal streak reaching around to rear vertex perfectly visible through transparent cap when hd. is retracted, Hd. round about D cap. Body cylindrical - other thick transverse colored fold green. Legs obscure - where visible hair costa distinct small. IV+V. Setae pale -

814 cal. .22 37 .61 1.02 1.7 $\frac{6}{10}$

Spur Mon 10

(814 cont)

[See after 845]

lobes produced into high conical tips but each with a broad low spiracle-like base on a little rounded, mostly granular white, with white brown, white fine, pale ventrally. The fat color like hair, black, held close to it, as the color of endotrichia wings. 2 brown with 2 black sharp points at tip of low double blackish lump below spiracle of 6 corresponding to V and V. A dark cone on G in position of 2 and a small bristle IV+V. Setae much contractile, teste long slender. Test about equal bl pointed erudite; anal by shield trilobate pale green, minute white pointed with dense granular point & then green; a series of small irregular black spots & streak edges whitish tinted. Test. indistinctly dark spot, violet; 10-15 grayish brown shaded lumps blackish, a dark fold below pair 10-12st pale. A remarkable mimicry of the young green stem that grows suddenly out of the old gray wings.

812

834 (v 900c) 8799

Spotted webbing leaves of *A. barbadensis* plant (?)
Rivina humilis Palm Beach, Fla Jan 30 1900
 webs in new and terminal leaves; later live
 in a cluster of dried leaf in which it finally
 pupate fastening its tubes a purple case a
 back of leaf.

Hd 1.3 (H J) Webbs over side of plant. Clusters
 large; dark brown, shiny. Cff long, brown
 scarcely inserted, semi-circular, edge with black
 markings on last part, angle, and hot edge. The
 furrows back elongate longitudinally. Blackish
 brown. The feet pale with black hair in back
 joints. Body cylindrical, rather slender, last
 seg tapering. Tail short rounded, contract at
 a complete ellipse. Tubercles small, colored
 with dark brown tubercles. On thorax i + ii,
 ii + iii, iv + v on abd i + ii nearly in line,
 in close to the black rimmed sprout, iv + v,
 & near above iv, vi with elevated keel, vii & i
 acting as a strong support from a big base,
 anal plate scarcely constricted. Hair whitish.

Hd 65 Slight color & blobs rounded, full, & high
 brown black, round brown. Cff large D cut by
 flock, shading to brown on ant. edge. Feet thin
 but black except heel joint, red black tipped
 body cylindrical tapering a little first. Tail with
 crochets & ellipse, short round. Whitish, transverse
 a faint white irregular white ad-dense and
 last. lines. Tubercles whitish, the main tubercle
 black; spiracles black ringed. Anal plate concave
 down.

Cast Feb 6 1900 Cat no 154518

835

Mucus on back of leaves & *Sebas-*
tiania lucidula Mill. Palm Beach Fla
 Jan 30 1900. An irregular non-
 lobed mucus with tubes in
 different direction, finally
 forming a large blotch with a
 long fold in the thin back
 epidermis covered w/ white
 silk. Below the the same was
 covering the thick upper side
 near the edge of the blotch.
 Hd round, like pull, ss, high.
 brownish, ocelli black, round
 brown. Body round cylindrical
 incisor well marked but not membranous, not
 strongly tapering. The feet large, round;
 abd. shiny, short, on 7-9 and 13. all colored
 whitish. Pts dark green greenish showing
 setae and tubercles obsolescent. (cf cat. no 15359
 (South Brazil) come out & roll up end of leaf! n 835)

836 - 837

On "jambu-limbo" *Bursera gemmifera* Jacq.
 Palm Beach Fla, Jan 30, 1900. Hd lobed, full,
 claspers, divided into large & small and small
 apical portion, light brown, shiny ocelli black
 mouth pointed dark brown. (all abd. colors
 in one g. Jamaica?) (to Shunk) (39nd no Jan 31)
 feet folded up fastened with yellow silken
 threads. Body cylindrical. The four legs
 abd a 7-9 and 13 large & distinct, more or less equal
 size with smaller ones with division in some
 incomplete; whitish transverse shield cross-tube
 setae rather long, pale; 7 down to 11, 12-15 in last quite
 minute, 16 long, 17 in middle. On the i + ii, 11 & 11b.
 Cff large D and pl. small. Hd colorless & pale, mouth brown

837 = 836 (out of Burch)

Blotch round a neck of leaf of guava
lives "Bassera Gracilis"

Palm Beach Fl. Jan 30 1900

Stalk root sends a long vein
at first along the vein itself
then turns inward and into
a subepidermal blotch bounded
by the vein. There appears
that no sign above tell that
the base (prob. on the third
upper surface) and a brown area
patch is produced on leaf.

Yucca whipplei, white, few red,
sign indicating recruitment (out of Burch)

(Compare cat. no. 15360), came out and made
holes like 836 Feb 8. One out feeding from Setaria 13
colonies, excrements later white. White with a dark leaf.

838 (out of Burch)

Leaf surface on upper surface of grass Panicum
disarticulatum older Herbarium, etc.

Jan 31, 1900 Several lobules, a lot of
parallel lines with distinct short
spur, late unfurled, lines were not in
either curved or straight lines. Mouth
a small space is closed and each

comes out with a slightly irregular
piece of hair like hair 1.2 mm diam
(and probably belongs to Setaria a case.
(To Burch) had very flat thin lobules and a
bit, more half high D, rippled with D
pale between lobules & mouth brown, a black
and a brownish occello, 2 retrocurved in 2.

slightly translucent, whitish, doesn't very flesh,
verte much more rounded; cap rounded
ovoidiform 2.3 long & 1.1 wide 5-13
short after 13 less small, dimid. In fact
a large round black shield on ventral &
5 star obsolete; no tubercles.



839 = 835

Leaf folder on Schotzia lucida
whole end of leaf folded over into
a neat triangular box and the
inside pointed out. Held by threads
of silk a button and edge serrated.
Holes within. Little hole close for
emergence. Cocoon is a branching
folded leaf, has a fresh one and a
hole at corner for emergence of moth. Jan 31, 1900

Palm Beach, Fl. No larvae. 3 cocoons
(out Oct 4, 1900. Cat. no. 15373

(N.B. This is spinning of 835)

840

Coleophoroid? case on Eugenia 790 sp. Palm
Beach, Fl., Jan 31 1900. On top of leaf
litter. Moth case resembling a thorn.
Bivalved 00-sides of elongate from head to regular
lips not overlapping back each side so
compact, at top a group of loose fibers. Tasted
by Webb's silk. (to Burch)

(Burch says Coleophora octoguttella Wals.)

Capnodis punctivera Sm.

Chit Men 17 1900 Cat 15786

841 = 796

Female with markings on back of leaf of *Eugenia*
790 sp. Palm Head Jan 31 1900 (= 796?)
Abd now pale, surface obscure, fine pub. small
not prominent; pale green, ocelli black, tubercles
brown, breaking it. Spots black; mouth brown w. 6
red, slender, numerous well marked, anal feet
slender not pale. Abd in ♀ 10 very small & 7
small & several 9 & 10. Pale green (tubercles
brown) smooth, transversely incisive back gray.
Small, 11 in largest, is subely pale. Setae long
darkish rather coarse. No shield, tubercles brown as
on the body, & pale without brown tubercles.
Abd 5-8 & 10-12 slightly paler; ocelli black, 4 also
in curve, 2 below in line from antennae. Claspers 2.
Pale green tubercles brown, ocelli black. Red
curve tubercles brown, it on it is a large spot,
others small.

Feb 8 841.4 Soft green tubercles all rounded red
brown, 11 large. Female part of back small &
tubercles smooth, higher pale, abd 10 many opposite 10
small, 11 brown, but no cavity (5 pale to white) or
else it. 12 below brown convex. Setae long, dark &
pale gray. A faint brown reddish band on below 11.
Abd 2.1 Hd 1.8 Some reddish but few faint &
broken with minute short yellow irregular markings
to tubercles means base of a minute round
red hair along 1-ii. Otherwise brown, green tubercles
brown. Soft, transversely not pale and visible, not
shiny.

Abd 3.1 Hd 2.2 Green tubercles on head & body brown-
red, same of vulva 1d (i-ii) hair, especially (ii)
and very faint & no markings. Spine 1, 12-3x as long
as other. Vulva long and in Hd 2.2. Clasper & foot
very long. Setae dark brown. Pecten slender, +
with flat narrow feet. Anal feet elongated,

Hesistria ligustrina?
(Kings 791)

842

Quadrant blotch mine on back
of leaf of *Guttanda elliptica*
Resembling 837. A winding
stipule riding tree vein
finally absorbed by the blotch
which is broader than veins.
Stalk very red, frass from a central
hump like a st. Palm Head Jan 31 1900
Same first leg retreched, brown
mouth dark brown. Claspers & tibiae
divided from the body & wider.
Setae wider, pale 2, with 3 tan, several
5-8 a little large about 11 base, 10-
13 tapering. Colored. Post green edge
of segment darker. No thin feet,
ab 7-10, 12 small, without bristles.

Tubercles absent; vulva obsolete (To Busck)
Female vulva brown and come out in open a lot of hair
in walking, down outside the feet. Body Cylind. 15656

843

Microp on *Rhus metopium* L, webbing up and
holding leaves together. Palm Head Jan. Feb 1, 1900
Hd 4 & long with strong flock. Post, colored, post green,
setae long, white. No anal plates, feet normal.
Hd 12 rounded, flat before, apex wide 2. & high. Post
tubercles, rounded, a blackish streak & a red one don't
run extending upwards from ocelli. Body rounded
transversely yellowish, post green. On large strong
hairs of a very worn white hair, letters in the
center of each hair a post. d. the min. and a medium-
and patch shaded blackish. No anal pl.
Post with white hairbed, a little fear. Tubercles
modest shiny, i large them ii & small & i.
17-18. On thorax i+ii, iii+iv normal. The
tubercles are shiny, radially corrugated about
the edge. Hair dull. Setae white, Cyl (Busck)

87 The white markings now obliterated except inconspicuously.
Stab Feb 24 Hd 4 m (St. hd. 1.6) Head brown with mouth & d. pointed darker parts above light pinkish brown, regularly dense with numerous large crenulations over all the body. Dorsal fin with numerous large crenulations over all the body. Mouth pinkish. White ventral cleft. Epipharyngeal plate at side of vent. White bar above gills. Gills only obscure. Feet reddish brown. Mandibular spine, seen in pale pinkish brown, oblique round division & more pinkish brown. Archion on 842 first blunt. *Serrulaea elliptica* Syring. Palm Read, Fla. Feb 1 1908 Stage I. Hd rounded slightly. Blotched lobes full, moderate, pale brown shiny mouth blackish, w. 6 mm. Body ochraceous orange brown in incisions, a broad white dorsal stripe on 5-10 edges by a sd from stripe that occupies all of dorsum of II. 3-4 d. pointed brown. Mouth 2 mm oval pink, setae in group of 5 sd on 2. Legs normal, actiniform. Fins elongate, slender, blackish brown, dark brown; i-iii 5 black, iii-vi 5-11 dusky i + ii + iii separate ii b weak remote spot; vi 2-horned in v absent. On abd. ii stg first, vi present elongate without hair; hair blackish purple, ii 9-14, iii 9-12 and 8-11 white. Another (younger) differing whitish less color contrast 6-10 orange at the base, else the markings dusky blackish. Stab Feb 3 Hd 9 Blotched lobes full & moderate to elongated brown shiny, retracted and with only hot spots. 3-4 large with long hair occupying head. Two small above abd. and on edge of wings. On abd. i-vi first area ables, moderate, i a trace smaller, ii stg first. 2-4 12-13 rays, 12 lightest. Dorsum of 5-11 on sides in pink and 5-11 dull brown. Dorsum of 6-10 on rays again (it seems) of equal whitish. Thinnish & anal both very broad - abd. 7-10 pale with co-colored plates. Dark pink; hair black dusky whitish 8-11, rest very bluishblack, large at end. Edge all brown except 12, 2-4 lighter than center of serratus whitish. In adults pale colored to dots along. Stab Feb 7 Hd 1.35 Head orange testaceous yellow; black pink brown much like pale. 2 mouth stained in 2-3 rows, of 2 about 10. g. or 3-4 copper large. Dark around d. on breast & feet pale cream color. 2d Internally 3 dark pinkish rows; 6-10 white on a broad dorsal area enclosing ii; 12 very pale except a narrow purple d. Abd. 13-15. Mouth colorless, anal feet pale, extended from

walls d. bar red even faded. Spine plate removed. Forks gray with darker line, mouth bar reddish. D. bar of 5 & 12 very slightly keeled, suggesting stiff hairs were at present. Gills white solid, dusky line, hair w. hair darker bluishblack, black & white mixed. Opercular, largest on the ends. Black hair slightly more pointed & a 5 size but no traps. White stg line 5-11. Forks purple, white rounded, hd, & abd. red. Stab Feb 11 Hd 2.1 ± (St. hd 1.35) Shining dark reddish brown, a faint blackish band along the entire epipharyngeal plate. Body as before, dorsum 6-10 bands gray-white with black dorsally & line. 4 and 12, except d. on 2 dull orange; Rest blackish purple with narrow white hair in 5+ fold; fins and ventral pale and nearly colorless. A thin black line from upper side of 21 in 5 and 12, forming a band with a 5, single in 12. Other hair ^{reddish} undulated down, not concealing body, fins, mouth, and bluish tint of the body is a grey brown. Mouth pale, slightly flesh colored, moderate, round. Yema body under leaves, well not red a green tint. Back pinkish brown broad, white suffused with red dorsum with bright pinkish, only 5 remaining dark hair slightly reddish. Mouth surrounded by white points; feet reddish. Base of antennae. Stab Feb 15 Hd 2.5 Dorsum rose pink, full & round & curved blotched stripes on top of front. Shiny black, epipharyngeal brownishwhite. Body reddish gray, no ventral except 1st & 6-10 and 12 the first & lighter and pale salmon tinted; vent all pale salmon. Hair rather uniform, moderately dense reddish, much the color of dead leaves but light salmon color like the rest, the long hairs and short whitish. A narrow whitish stripe along the fold 5-8 feet pale reddish. Mouth tan, and 1st and 2nd a little smaller, all very alternating actiniform. Mouth retracted with slight comb 1-2 sd. mouth or 3 ex, ii & iii present as distinct undulations. Hair somewhat sharp pointed to

Large egg on 812 fm plant
Palm Beach Fla Feb 1908 This is a fan
spray of grass that adheres to the plant. Rounded
elliptical, not flattened, but no end large than
the other, the side diam also wider than the 1
very pale yellow, nearly smooth. Parcels, somewhat
hairy but finely reticulate. .6 x .55 x .5 mm.
Hatched Feb 6 Hd 4 + flattened, round, not lobed, col-
ored below yellow, above close, ocelli 3; long black.
body somewhat flat, rather short, rounded. Pale
gray, feet both abd. etc., and the rostrum pointed
so fold yellowish white. Tubercles elevated, small
blackish; setae stiff black, pale tipped. Eyes 9 mm.
front, ventral more distinct being lined with
pale. Basal in areas 5-9 golden appearing as gray
transverse lines. (and eat the plant)

(814 cont)

for me in young leaves Feb 26 in I. Hd 25 round, slightly
lobed, pale brownish, joint 2 high collar in front.
otherwise cylindrical, smooth, bluish eggs to cut
evidently when walking pale yellowish, smooth
shiny. feet rounded with collar molting centrally.
two ocelli present, round & granular. No tubercles
other way in and feet not a pair or any feed,
no sharp salient at tip. Anal sp. very pointed
thin and wide but 2 small dark curved prongs
approximately and keep this the plate. Not like 2
Hd 33 blades in this blunt, highly pointed, a wide notched
between; yellowish, outside red mouth brown, ocelli pale
body as before 2 with 2 high one to front, anal teeth long
and, the dark colored on posteriorly grey. Semic
yellow growth, no marks, mainly pointed. pale in
interiorized & brown line appears. Not like 10 Hd 55
body sharply conical pointed. See sketch. Two on
the sides. High double point on each side, and plates elliptical
pointed, the thick long subparallel prongs reddish all
the growth, subgranular pointed pale, a band of
line separated by dashes in the interior.

(776 cont)

5th collar close above anterior, large. Broadly
white we do see anterior outline, this color a little
more than covering joints pieces and reaching anterior
with a faint double reddish line on S and another
a more distinct outline. Sides whitish with many
moisted brown lines extending around each to overlap
joining like a body. There are about 18 on each
lobe, each oblique, granular mottled with pale
dots, or lines 2 of each lobe, the lines are dashed
but intersected by transverses. S and T are S broad
black, the others blackish striped. Body slender
uniform, abd. for 9, 10, 13. Smooth, nearly
cylindrical yellowish white with many brown
or black granules mottled lines. Oral red line
dark in a clear space of green; 3d of 6 black
lines with a large black patch in incisure 5-6;
4 last reddish lines; a veining black consisting
pale; a reddish big and subtly join; 6 single
holes or line black, enclosed by a dark band
join & dent or vein; next a reddish, then
blackish and 2 reddish and finally a broad
near black median-ventral band. No tubercles
feel pale, marked with mottled lines. Spine
black rimmed. Tubercles 1 setae black &
small 1-5 line above midrib; 6-10 before midrib
& above corner, 11 opposite line edge; 12d mid the
spine in one line higher than in 11. Cuts up
in a green slope and a quick O, the
black mark & incisure exposed. Not like 10
Spines in the grass Feb 23 elliptical often not

Jugea bursaeae Dya. n. sp. *ab. 14*
Cut Mar 6 1900 Cut 1571

846

With mother on *Bursera guianensis*, Palm Beach Fla., Feb 1, 1900. Hol. 8 stripes especially broad green from brown. A almost $\frac{1}{2}$ the vertex. Body cylindrical. Claspers in front, 2-5, before first, esp on 3. Feet normal, anal divergent. Head, a yellow spot like 5' band. Spurrs not worn. 4 tubercles in and on black, all the colors; in outside post. Sets moderate. Palps
 abd. 6-11 Hd 1.3 do. ocelli black, & less than $\frac{1}{2}$ the vertex, more for body. Green part darker. Spots like yellow 3-15 ant, with irregular yellow patches in front in 2 & 3. In these, yellow patches in front in 2 & 3. In these, black tubercles on both edge & white edged. Yellow spot like 2- Spurrs 12 feet normal with long claspers.

ab. 6 Hd 1.8 and 20% green ocelli. Head 5 in C and 1 below behind antenna, 3' longer than wide and anal feet outside. Palps brown. Palps wider and anal feet outside. Palps green, feet darker. Spots like 3 and 4. Spots 2-15 ant, narrow, yellow patches numerous, irregular yellow dots like 5' on both feet. Spots reddish, tubercles small, numerous, setae pale. 6 tubercles on C-Abd. 2 offa ant. one, back. No tubercles in below spurrs 7-10, 11 in line with 5, 12 below. Tubercles 13 small like 10-12, which are 10-12. 13-15 small like 10-12, which are 10-12. 16-18 small like 10-12, which are 10-12. 19-20 large all black. 21-23 small, no tubercles, leg feet yellow. Hd 5-10 green, no markings, & black purple & carmine. Setae as in abd. Tubercles obsolet, setae pale short, anal divergent. No transversal.

ab. 9 Hd 2-4 same but black. 1st tubercles are minute & conspicuous. Yellow line distinct, the orange spots numerous, bright blue red at mouth, about tubercles 16 and 17.

Spurrs 12-15 vertex lower & wing thin

Post. of 2 lower ocelli obsolete, only a pit present.

Hair tubercles brown, spinules brown raised with centrally coiled, 10-12. Annulus about alike. Seta curved from line, first (i) the highest, 2^o(ii), 3^o down. 847 ✓

Sannioidea exitiosa larva. Hd rounded, full, somewhat flattened in front, claspers high, the epicanthal lobes meeting for a short distance, about equal to the width of the paraclypeal piece; a triangular membranous vertical piece] claspers triangular pointed above, an impression at each side at base and a small one below apex; paraclypeal piece regular, rounded above, a little narrowed centrally giving the outline of the claspers a slight shield-shaped form. Antennae short, about half as long as mandibles. Ocelli 5, form in a parallelogram behind antenna, one almost directly below it, the 2 first of the 5 smaller, each with minute central black pigment. Setae obsolete except about the eyes. Apex under 2. W. 2.6 mm. Light brown, shiny, smooth pale above apex of claspers, sutures wet, & few quinacrylial pieces dark brown; a black chitinous patch within antennae; jaws dark at tip; labrum pale.

Body cylindroid, scarcely tapering ant. more so post. Segs rather short, 3-armed incisives distinctly ^{indistinctly} ~~separated~~ ^{separated} solds double moderate, C-th semi circular ^{very} strongly cut ~~at~~ at the posterior-lateral angles, pale buttons, none edged. Anal flap dentate, but no distinct plate. Spinules moderate, normal ex esp 12 which is twisted ~~twisted~~ & iii and a directed posteriorly on the sloping surface of the body, larger than the others and ~~black~~, more heavily brown ringed. Two feet short; abd 7-10 nearly sessile, a transverse narrow ellipse of crochets in single row, broken on outside & inside at ends of ellipse ^{small single rows} crochets in 13. Tubercles minute brown, setae short. In 2 a seta in excised part of C-th, prespinacular with 3, s-v with 2 hair in a & i p apposite, ii a & ii do, iv & v rather remote, vi single on abd. i fused to ii and not very remote, iv & v, is directly above v, vi in lone set fold. vii of 3 hair margin in him on ant. leg base. Skin white without marks, only very minutely shagreen.

848 ✓

Melittia ceto larva. Od. Claspers triangular but lower last 5+ transverse in impression at base and very slight medial on in each side; paraclypeal piece regular, not narrowed, pointed above though a little less sharply than claspers. Antennae short. Ocelli 6, ~~5~~ 4 above & sessile, 2 below behind antenna. Setae obsolete except about eyes. Apex ab. W. 2.2 mm. Rather dark brown reddish. Body ab. 10-12 segs rounded somewhat creased but not distinctly annulated. C-th complete ab. Spinules ab. 10-12 all black feet to anal with a single row of few crochets. 10-12 crochets in each of 2 ellipses, less on first half. Tubercles moderate colobus setae obsolete, arrangement ab. White no marks. Hair tubercles colobus spinules black. Tubercles unusually reduced no annulations.

849

Asperia tibialis formis. Hd do. 847 basal depression punctiform, no other. Paraclypeal pieces following outline of clypeus curved along and constructed opposite top of clypeus, not so below. Ocelli 6 in group of 4 above, 2 below antenna all small & reduced. Epistoma black, elongated at the edges. Labrum dark brown smooth, mouth black, antennae do. 847. Width 1.2 mm. Segs 3 annulate central annulus small elevated. C-sh not distinct, concealed out, faintly and at first, covered by the curved groove. Anal flap colorless. Spiracles minute worn edges, hair tubercles colored. Crochets 12 or over in each row, small. Tuberules rather large, a little elevated, colored to ii, iii above, behind spiracle no seta; an elevation behind iv+v and one before vi like other tubercles but no hair. Setae minute. (This was not made out) white, no marks.

3-13 ant.

850

Sesia pictipes. Hd do 847, epicanthal lobes meeting at a point only the triangular vertical piece almost touching paraclypeal pieces. Clypeus round the angular, not distinctly truncate at lower corners. Paraclypeal pieces rounded at apex & narrowed centrally. Ocelli 6 in 3 groups of 2, all with black pigment, distinct but not large. W. 2.6 mm. C-sh tubercles brown, many white centrally, else lo. Spiracles brown ringed, hair tubercles brown. Crochet, 3 feet 14-17. Tuberules colored do. Middle annulus rather narrow & higher than the others. (ii)

851

Harmozia pini. Hd 847 do, ocelli do, & colored just on post. lower antennae without black pigment. Dark brown, uniform, labrum centrally, black as nose and between and para-clypeal pieces black. Inters between pre-pieces & epicanthal lobes pale. Epicanthal lobes meet only in a point. W. 2.3 mm. Segs 3 annulate, 2d (ii) distinct higher than the others. C-sh large, run to spiracle do. Tuberules brown, spiracles brown ringed. Tuberules rather large, a little elevated, colored; ellipse of crochets short, hooks large 6-8 in a row.

firm, old or young

852

Hespaniina sequine. Hd do 847 the epicanthal lobes not meeting, just turned each other and approximate, the dorsal black outline of para-clypeal pieces running through the vertical triangle. No upper impression. Ocelli 6 just above post. annulus, pigmented, obscure. Brown, & darker a pale area above and a pale stripe each side paraclypeal pieces equalizing them in width. Setae distinct, ii and iv esp. large, only 1 midlamentary. & as far as setae plain. Labrum brown, jaws black, epistoma pale brown. W. 2.4. Body fine below segs obviously 3-annulate 3¹/2 small 2¹/2 highest tubercles large, colored, setae close & distinct; hair tubercles brown, spiracles brown ringed; crochets 7-11. Anal fl. slightly elongated with 2d tubercle round & elevated. Hd c-sh 2 setae alike, 1 in one off corner, 3 in lower part & in a rounded tubercle, 5-7 with 2 hairs. Hd 3-4 just, ii+iii, ii much to iii than v which is and mid low down. A brown undivided spiracle behind iv; vi single banded. (2d tubercles from this standard)

853

Alethodes cascada Hd do 847 lobes somewhat mostly touching though gradually divergent above 2 verticals with a very median point, brown black but post line colorless. Hd rounded a little above usual. Parapieces covered but points alone, midist below. W. 2.2 gels brown almost uniform above, smooth, veins pink. Segments dark brown. Tuberules brown flat, hair tubercles brown. Spiracles brown ringed. Crochets 9-13 in rather wide ellipse. C-sh long line of 3-4 strong, mostly brown the third stiff nearly colored. Eyes alike - no good for key because the puber

854 (red border)

3-13 ant.

Mucro on *Crotalaria purpurea* Cutiga, near sea at Cola Beach. Feb, Feb 3 1908. Hd. annulus first & high triangular, joint meeting spiracle & whitish eggs black in a slender band along lower edge of head. Body short and thick, whitish centrally the ends distinct, greenish 2 small with long transverse cut & a long black spot on last angles and brown near post edge cd. Antennal fl. shorter, black without transversals, a red a narrow green line. Segments i & ii very large, dark purple. A series of whitish bands, 1 dark brown, 2d before i, 3rd, 4th, 5th in next spiracles, 3-7, small. Whitish ii+v. Tuberules small, brown brown, the size of ii & separate, 1 with grey shaded, 1 dorsal to ii, ventral approximately ii+v. Face whitish brown; this white except at nose. vi with tiny brown patch vii in one tubercle. Crochets black on circular plates, ring broken centrally & whitish. On 3-4 the 3rd may patch to before ii and others also 1-1. On 11-12 the 3rd & 4th patches are also small.

Cat No 15638-9

855 Feb 3 1908 1011.2 pupa before larva
Head types in "white mangrove" *Zygocellaria racemosa*
Island in lake north below point, Feb 3 1908. Most
obscured, some in "Spanish oak" (not taken). Segments annulus
run in a skeleton at Cola Beach (no case). Segments wrapped
by threads. Recently 143. Hd & black. Gray body, w. 3
annulated pale off large black, scarcely colored. Head fl.
oval-like flattened tubercles. Body annulus transversal, otherwise
undivided. Segs smooth, 4 corners folded, feet narrow
and. Tuberules small, blackish 17-18 setae long,
pale. On 3-4 is very small, separate from body
1-2 & iv+v. 1-11 of old, nearly in line, 3 broad
widening annulus, annulus post, a brace flattened
Hd 1-1 clypeal high but not transversal, spiracle & lobes in rock
of mud in a vertical fence; 1d setae never pale, 2c-sh
but very rounded white transversal, not spiracular. 3
except off a spur, tubercles 2 dark. The feet black
large base joint, 7 walls annulus, brown ringed
seg. 3-4 very pale, 4-5 fold double. Tuberules
blue-white brown, dorsal & 4 legs greenish with black junction

856
 Blotch mines on upper surface
 of Pisonia obtusata Swartz
 Palm Beach, Fla. Feb. 5, 1900.
 Same feet in arcs like 818.
 escape from sun at end above
 a red line from about edge & run
 to flattish pale brown edges
 light but not quite touching re-
 tricted triangle. Brown on edges
 outside dark brown. Reg feet
 2 wide 3-4 a little smaller, 5-11 almost
 equal, 12 and 13 tapering. Segs much
 well rounded, the segs a little up-
 holly indented hatched. (A large
 bisected in two triangular halves)
 Black purple with a few pale dots. rocky
 whitish at sides, with a brown diffuse purple d.
 band, band round white spots 3-12 very
 small on 5 and 12, others large. (Not all drawn)
 On this purple fades body all yellowish on the 5th
 dark. Bands and below a green zone of bladders.
 No Feb 27 1900 Cat no 15683

857
 Green mining min gradually
 widening on upper surface of live
 oak west Palm Beach Fla
 Feb 5 1900. same with white
 above pale green mostly from
 red surfaces of pulp. Brown
 mounted brown. (to Busch)
 (Same escaped before arrival - Break)

858A Same epoch but on Pisonia aculeata 70426
 116 and V of the been dead small & obscure, 116 mean about
 8 mm. long 10-12. Ord Cat 15763 (and cat no 15671)

Break part

858 55
 Mine on 856 just plant Pisonia obtusata
 Salter beach Fla. Feb 6, 1900. at first a mine
 with open hole like 780 and 833 latter eating
 (purple) patches a bunch of leaf from a central
 white web covered by a layer of frass.
 slender, narrow on top narrow
 toward distal green, hatched in tiny
 black dots. Hd flattish, a high, nearly bald
 very vertical S, whitish well back, smooth
 pale brown. ias ii in line. In trace dashed,
 IV V separate, is closed, VI on line 5 V
 fold. feet short slender in 7-13 and 12. D.
 oval slightly dentate. ♀ glands colorless take
 tanish gel. small brownish triangular bladd. on
 the 12. ♂ Apical is more tubular for ii. ♀ for IV or V but not
 on base seen on each. Within web feet, web margin
 green with diffuse brown back d. Bladder in abdominal.

859 86a (Busch)
 Leaf mines in young leaves of Mastic or upper
 side Cuban Cedar Fla. Feb 7, 1900. Green
 and slightly widening. mines a great
 blotch on upper epidermis which
 split off. This soon become tight
 or growing larger and covers the leaf
 like a delicate membrane, normal
 below. Veins brown, longitudinal
 veins and lot of fine, closely together
 faint brown patches. Hd rounded, apex wide &
 a little flattened, S high & narrow just
 touching central S a little depressed.
 Intern, much brown, cells black. Rich
 cytoplasm, not sapless. In center not
 deep, transverse faint yellowish line
 just back odd vessels, 7-9-11 scler.
 pale, obscure - several obsolete. In
 sharp corners

Calc. 29 41 .59 .84 1.20 1.71 2.45 $\frac{7}{10}$

Cerithium incisum

Apr 12 / 50

860 = 177

Noctuid egg a nape with 2 spots first placed in large mass. spinoidal, base flattened ± 40 microns. ribs dimly rugulose & intersection reduced to ± 15 about center, also striae distinct base vertex finely reticulate. Dark purplish. D. 6 mm. Hatch Feb 6 (Peter Head) ate bur grass. Hd. 3.5 mm, rounded, $4\frac{2}{3}$ smooth surface with brown tubercles, cells black. Opt. vent. D. brown dotted, corrugated, bisected by pale brown & line basal pt. smooth, anterior. Ths. per black abd 7-10 eggs with smoky shades 7 or 8 smaller. Cylindrical, in a brood enlarged. Colored, pink green, tubercles smooth round black. Vent. 3d, (i-ii) lat, 8th (iii-iv) broad & s. last. Between more lines. Tubercles numerous as subspinous, in stg post. On the iii separate. Hatched Feb 10 Hd. 4.5 rounded tubercles, each white pointed and set brown. Body green, from side strip of pink brown, a white pubescent band between the head. Ths. abd or symphysis thicker. Dorsum rather bands greenish & white pale, post 7-8 very shiny. Setae black. Surface very smooth, obscure 12 mounted. esp in 2 obscure vertical bands, occurs black.

Hatched Feb 13 Hd. 6 whitish cells black, smooth brown, a faint brown band across, 1/2 anterior and one broad green band below which are some distinct dark brown reticulations. Green margin no size & a little enlarged. Opt. found internal surface corrugated. D. line white, narrow; Sd. last a stg dark brown with 2 white lines filling in the space between them, below a distinct white line in 5 or 6th; a brown 5-6 mm (vi). Tubercles & setae small, black. Opt. shield dimly

Fig. 7 for 11 & 3 same. Body green & brown white, green except; Sd. last light brown; surface brown darker purple brown, mostly white band; trace of brown S. V. in middle. Tubercles & setae minute black.

Hatched Feb 21 Hd. 1.3 green from Red green day & blackish brown to 3d surface, on pink from cells as a band in between on side & base are numerous reticulated tubercles.

foliage, waterlily, 12 tubercles enlarged to shield, face equal. First whitish & brown mottled. Second d. 1/4 side brown below it greenish bluish shading toward white, and centered 2 bands - anal just a bit pale. Dark appendages.

Tubercles & setae small black. Brown from Ds but head tubercles are very brownish tinged, base brown not streaked green.

Shaded Feb 27 Hd. 2.1 Hd. Intern. carmine line as before. Blotches reticulate. Body brown like dead grass with a band white mostly white band 2 bands - anal pale, pink field is with red slight cut by spiracles except 2 all others it has below them. Opt. mottled with red-brown, faint lines. Second abd & broken 1st blots fading, appearing as d. in body & 3d seg black streaks & double obscure brown back band, forepart red mottled, dark brown shaded below & 5 vent. white & sharp edges a bit pale. Head pale. Tubercles small black on pale, triangular + with whitish; anal pale. Slight greenish other wise like body. 18.5 mm wide, 6.5 mm long, 7-10 tubercles mottled. Hatched April, 12 above middle & by shield transparent with 3 pinkish tubercles in s.

Hatched April 4 2.7 Same, subely but hardly reddish carmine mottles, more sparse, becoming a sharp edge white line above below. Other lines as before, a lighter more yellowish brown area in the middle of sides, spiracle white, black edged.

And Apr 10 1905 Cat. no. 15840

861

Miner on under side of Verbesina virginica L. Peter Head 3/4, Oct 1905 min. blotches a little swollen are red above & brown below, finely scoured up into longitudinal furrows, a white cocoon clinging to the hollows above. Repetitively straight, narrowing near side also irregular winding with several irregular small pointed, brown cells. Mouth 10 slits long, open under 2. Body whitish, greenish

One out as specimen for Busck, Cat. no. 15524

Booper or *Andisia pickeringii*, young leaves, Palm Beach Fl., Feb 10, 1900. Hol. 35 mm. whitish with a straight brown stripe up the middle to vertex and on each side across ocelli to lower angle of cheeks, the 3 meeting in the mouth. Body rather thick tapering little at the end, not flat, smooth cylindrical, incisures well marked; very obscure annules, whitish, few greenish diffuse and unstructured brown stripes, joining those of base covering neck. Pet short, pale. D. stripe darker spotted in the incisures. Setae very fine & thin, dark, tubercles obsolete. Subspinous present.

Feb 13 Hol 11 (Hol 2) whitish, faintly incisures brown, lat. gliss and anterior red brown vertical stripe absent on S, border median anterior pale red, jaws reddish. Body, rounded undid blunt green, few pale, 2 and 10-15 pale, whitish; a row of 8, red black spots on seg. and almost 2 incisures 6-9 replaced by a broad reddish streak in various and 10-13. Seg stripes brownish red diffuse, 2 anal foot in which it runs narrowly broken interrupted. Mic smooth.

Feb 15 Hol 1.6 (Hol 1.1) Red, green, yellow, 5 less than $\frac{1}{2}$ in vertex, yellowish green, smooth brown in center with reddish; a dark area around base of jaws over blade ocelli to occiput. Body cylindroid blunt smooth, normal. Gills fine, strong brown longitudinal wrinkles with bluish green a broad diffuse 5-8 red streaks from dorsal part, on 6-7 ant. ends faint whitish with reddish markings. Tubercles minute numerous leaf interspersed white but distinct & central to

other three, dark vertex bright whitish. The reddish suffusion at ends increases esp. 5-8; is exactly the color of the young *Andisia* stems. Tissue fairly reddish mottled & bind throughout. Sporang. Feb 21

Cat. No. 15743

Sphaerostemus angustata

Free feeding. Stems come about round from a little depression at ends whitish tanish pink green range, tubercle large white, petiole black, slender to 10 cm. very narrow, is brown, slightly raised each time to 10 cm. in a few days. Other no 10, no 11; 11 & 12. End brown dotted with black dots. Gills pale, smooth faint

Linear leaf miners on upper side of *Iva frutescens*

1 (also in the bark) Palm Beach Feb 14, 1900
Young with black central stripe &
green except at tip. Young not by older
stage (also a different min in same plant)
Older stem delicate, circular with a hole
in leaf with a hole in it. Leaf curled.
Lett flattened seg, slightly constricted
at beginning, becoming lobed. Pal. skin
green tint, not shiny, 15 mm. (7+ thick)
and in this circular brown and green on pink
young leaves first exposed. Rotted white areas on
this plant and var 2 of 1900 Cat. no. 15672

Euceron confine

84

Yotacova

Egg on leaf of 863 plant covered with vine of large-leaved milk-weed. P. libertia viminabis Gray (?)
Palm Beach Fl., Feb 11, 1905. ♂ sp. well rounded, smooth. White, transverse with a pale green tint, not shiny. Pet. small, irregularly broadened slightly raised, about alike all the dist. D. 9 mm.
Hatched Feb 12 Ad. slightly brown whitened. D. high, well black, round brown; 4 mm. Body all white shaded cream color. Interv. long & acutipinn. Fins gray slatey. Red margin, acutipinn. fin long, stiff. pale in black, also in but not over long black bars base pale top. Breast I-V, no subpinnae; leg shield pale slatey, toes blackish, 1 and 2 small. On the 1-4 & 5 II & large, II & II & IV first, small. On overall reduced, concolorous. Hair all single for I. on the milk weed, except 863 plant on Mikania, I & II & 3-4 are black, II a white but all on a single tract with a projection isolated. On old 863 is very pale yellowish, fins barred gray, tail pale a little darker at the spine. 2 retained and with very wide bases. no anal plate. Hair of 13 and 1-III in one tufted. 15 dots on anterior.

Shelf #1615 Hd. 5 mm, rounded, slightly lobed,
pearish pale yellow, with numerous streaks. Body
dark brownish brown yellow, a brown shade for
rest. Bracts large, perfectly colorless. Hair long,
straight and rather stiff, deep bluish and pure
white. Monocot. Blunt pickets mostly d. white
S-V. 2 small i. retracted, 3-4 rather large
but all pale; no shields. Only one 5d want on 3
and 4 i. q. and small. as also is one v. but
all several branched. Not very fat, uneven well

~~number, base of a single white d. line indistinct in center of eye.~~

Shark Feb 19 C. M. nearly absent, a few weak hairs; head, protho. with small, few bristles. Red dash 3c
a. 4. 1st brist., front, bilobed & about $\frac{3}{2}$ as wide as
(jaw; a couple ocelli $\frac{2}{3}$ black; W. 1.0 mm. shiny pale yellow.
near mouth body pale yellow with a black d. line 2-12,
(inner web) broken at the ends, dotted and not deep-
(upper web) with edges. Few large pale spots moderate
irregular bars abundant, long bars of irregular length
long at the ends 3-5 12-13, coarse grey from a nearly
even mixture of black and white bars near stiff
spinules, the long ones finely pointed. Post greyish
12 at sides a little more yellowish. Gills black &
then cut a series of white, irregular diamonds striped
d. spot 5-11, 2 per segment, smaller and, confluent.
Also a narrow yellow sd line 5-11 below it.

Shark Feb 24 Hd 1.8 pale yellow, ocelli 2 jaws black, lobes
white at tip; bow, round, lined out pale. Body bar
and shoulder spots yellow esp at edge of fins and
12, solid grey on post. A broad olivaceous black
d. stripe nearly 11 mid parts, discoloring; at 11 indistinct
on the center of eye, replacing some white, reaching 3-12.
6-11 on sd line black 11, 5-11 other i. incisive. Hair
whip-like stiff straight, rounded, black & white, the
white much predominant giving a number of bars at the
ends much longer; bristles. Posts i-iii and vi large
almost confluent; a little smaller if as many
intercalated, hairline straight. Post with 1 large sd post.
Sd line with 10-12 short hairs.

~~black~~ black becomes black band white from 5 d. width
but narrowing at 1, widening to 2 and continuing a d. and
a somewhat ~~purple~~ ~~purple~~ black band across post-oral
area all back.

After Hd 2.9 rows and tubercles black, slightly shiny
middle of the moderate shield shaped depressions are in
color variously olive green as also epistome and anal.
an shading until joined tip of latrunc volpi - occipital
also pale. Post. a little flattened ventrally, anal,
1 with narrowings at the ends. 2 retinacled and
weak without being anal flap with vent (fig. 865)

865

In soft web at end of short, young leaves of *Pithecellobium quadrangulatum* Vallen Beach Fla., Feb 12 1900. Hd elongate, subtriangular but scarcely wider at 2, & high, mouth projecting. Twoish between mouth from well large and black, forming a distinct black spot; w. 4±. Body slender, cylindrical. Feet slender long and normal, solid greenish, translucent, base mottled with brown, faint except laterally where the color forms almost a distinct ring, cut by narrow dark line extending ^{superiorly} to mid and 5-6th of ~~body~~ ^{say brighter}. Setae long, pale brownish minute, 18 and 19 separate, not very remote, a line. (but may 7 but lost)

(864 cont)

Warts large, rounded or elliptical, one set in 3 by a pale spot in distinctly 3d, i-m and 11 large, iv and v small, but distinct warts. Roof black dorsally & in center of seg down to the feet pale greenish ventrally but is inclosing of a black band of iv where is trace of a white strip here, only anteriorly. Warts dull flesh color contrasting with body hair which black short mixed with gray & white esp subtending the long hairs at ends of legs white or apical black. Hair long, naked over, coarse, spinules, the long ones at ends numerous. Feet all pale as above in center narrowly, white band in front. Spinules white 2 all pale greenish. A slight black tuft on 12. Specimen Mar 8. Coll Mar 26 Cat no 15808

Encelocornis confine H.S.
v. *carolinensis* H.S.

866

(In opening up 865 to see what was in there company found a Hippomanioid and a Mole beside figure 865.) Hippomanioid in web on *Tamnocala racemosa* in nest of 865, Feb 12 1900 from Island Lake with Hd 1.1. Head sligh, cuspinate 2, base flat, mouth projects green, mottled with brown esp above. Body slender cylindrical scarcely tapering near shields. Dull green, opaque, mottled with brown hairiest & a thin, obscure double line. Head pale II and just covering III; a narrow brown d. line, edge of ad-anterior lines of good color S-V thin brown mottling pale and feet green. A black ring about II in 13. Tarsacles black, setae long, pale, legs divided into 2 separated by a narrow line, I-VII on them, IV or closely approximate line of separate tarsacles, & crossed by it diameter and a little oblique. Spinules round, yellowish. On the last & closely approximated, i a line. On 12 is it in line, approximate. C-H perfectly crosshatched with 6 setae, normal. Tars. Then is a broad 3d and annulated. Another set 21 soft web only in the young opening leaves.

(Cont Mar 7 1900 Cat no. 15722)

Cus Saissetia flava (Gmelin) ?

very pale deal. Caudal. Red & blue of 2 red dots stop
but red & blue back a few purple in others. Dorsal pale
yellow brown or yellowish reddish. Spots black.
Caudal brown streaks, a strip of yellow line all in greenish
ground than greenish streaks. 867 Oct 1901, 1900 Cat. 10294

Nola on Lamproctaria decolorosa (unlabeled 866)
Separately scattered, 4 rows of nests, lowest row 6
feet on S. side, all normal for Nola. Hd. red,
oval, below 2, & broadly triangular, with tip
whitish nearly colorless, jaws brown, teeth black
W. 8 ± mm. Reddish between, 3 ex somewhat
reddish, w. in dorsal. A broad black sd
stripe, faint on 2, narrow 3-4, width 5-12
where it ends, covering the upper part.
On 6-7 in a sun at 12 the pair nearly
join. Varnish get stuck d. hair of grass
color, a reddish chick on 3rd 4 somewhat
broken. Sides reddish but with (?) yellow.
Feet and scutellae whitish, nearly colorless.
Hairs short, dusky, long and pale from
nest (?) only a few from (4) which is colorless.
Anal plate pale. C. h. scarcely compressed.
Somewhat bisected

small white dots, & when they come to know
sd band of reddish something in a reddish zone.
On an apparently silicate base covered with green
another pinkish band very (longer)

other channel. more red white At first a
leaf mine with hole, later cutting channels at
gashes so that they turn brown.

Opho (or white) 867 ^{1/2} Oct 16

Golofetas? leaf mine in young Festuca novae-angliae
Collected Feb 18 1900. With other mines partly
lapping over and go to another. feet pale white
in many stripes along the margin (5-8 per leg) Hd &
cap black brown (in alcohol) The feet black & white.
(purple back to red) Argopistes septoides the
a beetle. See ap. 8

Referred to as B868 in article

868

Star bird (Pteroploid?) in Iva frutescens
Tuber Resch, Flora, Feb. 13, 1900. red veins, full
above & small, thin white lines with red dots
at nodes. Pale brown, surface of 3 mm thick and
few mm. of lobes dark brown. W. 1 mm
body cylindrical, blunt, squarely truncated
at end. C. H. reduced, membranous, pointed,
2 usually behind it in a B area thick rays
web granules. mouth 1-2 mm. transverse
granules, 3 in mouth, 10-12 in line, rather
dusky, 4 mm; 10-12 in mouth with a
few 2-3 mm. setae on top base. B. branch
expanded in rimmed disk with thin stony
lobes below the center of this oblique disk
disk erect with dorsum convex tip, black
disk broadly fringed with stony hair com-
posed of the scales of B and small plates and
some secondary, see above stony & bone
12 has a narrow d. shield and its apical
is raised and turned obliquely upward
Sordid yellowish, shield dark brown, disk
blotched brown; a faint irregular brown
d. line, a fine irregular sd band with
faint central shield in center of each seg.
irregular brown mottling, etc. and a 5-6
scales, quite dark but not distinctly
divided into bands. Feet normal and
large crooked in a chick broken or the
outside. Manubrium seen, setae single.
(last one left died May 28)

(Drypetes)

869 *Drypetis crocea*

Spiraled on young leaves of *Spectranthus willdenowianus*
Palm Beach, Fla. Feb. 15 1900. In a loose coil,
delicate that disappears after hibernation.
are gone. Not gregarious, but in company.
Abd. 75 bilobed, ciliated, 3 to 4 times. C. th. brown
rust. greenish solid. Legs greenish with brown
brown 3d stripe, band whitish; i and iii and
couplets ii and ii but not colony the solid
greenish brownish tubercles. Head pt. greenish
+ iii long. IV + V and vi small, pale, concolorous.
Setae moderate pale. Hair full of short all rounded
greenish tubercles 1-iii blackish. IV + V hair
distinctly 3d trace of whitish edge to 3d line.
Abd. 1.5 brown, rust. Bilobed jaws spine to vertex
mouth large; greenish, turned brownish or water,
tubercles pale but all strongly black ringed.
water scarcely under 2. Body convergent flat,
uniform, tubercles i-iii long, on 13 convergent
regular and prominent; iv and v small black
whitish, is absent vi small vii of 3 in leg has
the two brown pale. Pale green, a tint blackish
3d brown, slightly raised by pale ring about
the tubercles and into separated mottling
the pair young first on 3 and are by the
large blackish, heavily bisected C. th. The 3d
now more raised + at iii and does not
quite touch a faint white bordering him also
1 below, the upper crossing; on low elongated
Tubercles black, intermediately pale. Feet pale.
On dorsum i + ii, iii + iv, V + VI. Ocelli 6 in 3; semi-circles
dorsum encroached on by iii, ii, stopped by i, 3
well down to ii.
Feb 17 got blackish on dorsum and intercostal

870

seen here in *Cynthisia hetera* Palm Beach.
Feb 16, 1900. On young flower head, well
up the head with stalk and flowers and leaves
down the stem, eating its epidermis so head
entire and form a rather mass with from
1/4 hrs. 1.0 Long, bilobed, lobes notched by vertical
5, cleft to the triangle black, cleft pale
between almost whitish! Ocelli 6 in 3; semi-circles
abd 1.9 Brown, rounded, jaws spine to vertex
blackish brown, setae and side black
labrum pale, Ocelli 3; colorless not head.
C. th. tubercles black body greenish smooth
articulate with red-brown. The feet black.
Abd round. Body a little flattened. Setae pale
webbing among buds and easily into them.
Tubercles round, black, i + ii, IV + V one single
round tubercle, is above; vi distinct, VII a very tubercle
on dorsum i + II, III + IV, IV + V, all rounded tubercles
size 2 mm. lab. C. th. pale brown, tubercles large brown
larger than II, III long, III before, others smaller, IV +
V on either side of the body pale between faint
closely mottled with reddish specks brownish
setae dusky, rather long. Skin not shiny
mottled granular, anal flap round concolorous
no plate. (max. Abd 1.9 mm. abd). C. th. moderate
brown, bisected, anal pt. long, pale brown. Dorsal
dark, mottling brown black pale and
3d, 4th and base of 5th hairs. Tubercles shiny,
body dark. Ends tapering a little esp. first. Spine
1/2 round dorsal of often a large whitish hair
2.5 mm long 4 mm thick.

Spine a large webby cocoon

(ent Mar 14 1900 Cat no 15771)

Drypetis crocea Fins

Calc. .6 1.0 1.6 2.7 4.5 $\frac{6}{10}$

871

Splinters? egg on Randia aculeata singly on back of leaf
Palm Beach, Fla., Feb 17, 1900. Elliptical glaucous
above & brown, wider, uniform. Shiny surface
yellowish green, faintly disgreened without retro-
illumination. Size 1.2 x 1.1 x 1.0 mm.

Hatched Feb 18 Brown, scarcely bilobed, is small, pale
yellow, not shiny, eye black w. brown. Body
cylindrical, rounded pale yellow, down large
lvs, nearly erect and curving forward. Back
minutely dotted with i at tips. Other setae short
pale, rather stiff, the shaft bluish tinted, tips
very minutely widely cleft. Saw in line, i a
place dorsal, is slightly higher and anti; one
seta on outside by pleib. On the fat it, fat & fib.
is thin longitudinal, is well out in subfringe.
Saw Feb 24 Hd 1.0 round, higher than wide, is small
near ground pale, occiliants & tips of jaws black.
Body cylindrical narrow, rounded, has large
dots (brown ground), minute: green downy pale
granules, pointed tips (sd line 3-horn). Horn black
diluted with pale center and red at base on 12
and a band on 13 and. Therefore, incisure not marked
sd line remains a thin, a sd sun regular ab faint
oblique line and distinct from horn to first of 10.
Gate oblique & abe distinct like 12, the sd at other
oblique juxthorax.

Feb 25 Hd 1.6 round, views in either before, a
little higher than wide, erect, scars flattened & fm
a very small & green white granula, occiliants
black. Body rounded from base (3 mm) erect a
curving a little forward. Green white granula; a
central green d. line; oblique with the ones
6-4 (forward & downward) and 12-10 mm a distinct
the intermediate faint. A faint longitudinal sd
on 2-4. Horn red brown, a dilation before the black.

Af: 13 d. stained with red-brown. The fat reddish
brownish; ab. green. Spicula pale inconspicuous.
(dead March 11)

Referred to in article

872

Leaf miners on under side of
Cissus bipinnata Muell., Palm
Beach, Fla., Feb 17 1908. A thin
winged folder creamed the with
black central line of green color
a patchy folded edge of body, all as in 800.
Same pleaters, wrinkles, same protruding x form.
2, 3 large, 4, 5 small, tapering back. Colored
a narrow zigzag device line on each side
along the outline of the body, absent a thorax
(next to frustule)

Only firm ature?

873

This must be the Tortrix. Busck describes the Tineid Ostria
in terminal leaves of Ira pratinorum on a soft
web Hoffmannia-like lame resting in the leaf.
Abd. 6 are pale, weak, rather smooth, make c.
green, brown streaks on apices, below black.
Body slightly flattened on first prominent legs
showing 2 annulations-free, ventral cutting as,
dorsal half joint being rounded with solid
leaving 6d. lab. & stig. have 2 greenish color
darkish streak, double, the moderate long.
just ii in line, is aw & dotted) approximt. but
separates by about a minute or more, in line,
ii in green leaves or front. Legs very slender, more
normal. C & H greenish, not conjoined, from mouth
before it small pale concolorous. Inclusion distinct
slightly folded (next to Busck)

Set out one that was spun in by another larva
and stalk. Cat no. 15839 Dichogama amabilis

874

Wöschel

Large Tropididae in leaves of spun up leaves,
solitary but several in a bush of Capparis jamaicensis Jaq. Palm Beach, Fla., Feb 18, 1908.
Hd 3-4 mm, brown, apex rounded, D with thin



pare D green to water, anterior
rather long, white with large
angular oblique blotch
meeting and tiny black dots,
the thoracic black tipped; sun-
tive of D black. Two upper
cells large with black centred
dots. Setae long fine, white. Body thick,
6 first flattened, narrowing somewhat post.
C & large weak, transverse whitish, more
transverse centred and ant, the whitish part
black dots & black marginated last. Body
whitish the post giving a green tint, a double
yellow d. and single dusky line 3-13 and
crossed edges of a line broken, side a line
whitish with a broken whitish last. Line
above iii, Subcilia 1-11 white, from behind
mark with a distinct whitish ring, absent in
ii which :: looks smaller over oblique white
ring and vi also on the apical seg. Anal
feet greenish marked with white
obscure dusky edged above, enclosing the
greenish d. ventral. Spine light red, thick
of 5 turns than the rest. Feel short pale.
(Resembles 781) Hd 2.1 Essential d. Abd. lab. &
stig white lines, stig edge blackish above with
slight whitings, depressed white 8d, i-iii irregular
flaged, black black, then white, then brown, suddenly
very bright, then finely white. iii like i-ii. 10+11
is generally not very marked. C & which
marked, black dotted, and later less strong similar

875

Mines in thick fleshy leaves of Iva imbricata var., actually on the ocean beach, Palm Beach, Fla. Feb. 19, 1900. (See Cat. 15646-9)

Mine about 2 leaves with mine in the other hole at the end, another said webbed up here or even some leaves cutted at end of shoot. Hd. 5' fatter, 8 high but not to vertex brownish button, outside & brown, round from edge black with a blackish line along lower & cheeks. Body apical, plump, measure distinct and a little folded, each large, incised at post. angles, shiny brownish buttons. Body yellowish, smokeately opaque, just faintly green. Segm. moderately umbellate, shiny, 9-10 fold moderate (2-1) labrum, anal plate scarcely constricted but retrose. Tubercles minute, brownish, setae pale and obscure except at the tubercles. I dorsal to ii; iii above & before the small nose, more rounded spicule; iv + v and vi 5+6, one oblique above & before the other; vi post. in lava fold; vii of 3 in a 3 in ant. leghouse. On 3 of 6 ant. 1 to segment, 6+7, vi single. Setae minutely granular. Feet small, normal, crooked & 7-8 in a complete circle, 9-13 in ant. brief. 1 plant. Cost (husk)

876

Mines on palmetto Sabal palmetto solitary, Palm Beach, Fla. Feb 20 1900. A thick felted nest in an angle of the leaf a under old bark composed of silk and comminuted frass (= palmetto fiber) arranged in 8 round chambers slightly overlapping & connected, successively larger, total $\frac{1}{2}$ in., last 8-10 mm in diam. Yarns single. At the end an irregular mass of loose fiber and the whole overspread by a loose, distinct mass of fine silk, covering also the area where the larvae feeds. Pupa in the last large chamber. Hd 1.6 (9th hd from pupa 1.6) round, slightly bilobed & with one to 5 vertex, depressed at apex, few fine 1mm carinae. Jaws brown, ocelli small black. But flattened & thick ventrally, incisor well marked, of uniform width. Seg. smooth 5-5 sets moderate. 2-4 rather folded & the very slight, buttons, very membranous. Opaque whitish dotted with transparent speckles. Tubercles minute except iii which is large & pale button. I dorsal to ii; 14+8. 12-13 muscle, 13 not strongly folded; anal flap conical membranous, uncolored. D. several dark setae fine, brownish but short.

See Wm 5 1900 Cat no 15713

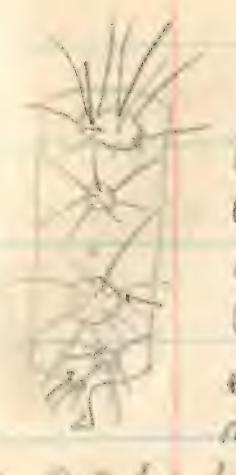
almond pulp with dorsal points in the leaf; no weevils.
Yellow Hd between pale. Red all whitish, just free a faint
orange shade 3-6 darker 5-6. Sets black, beneath violet.

Cost Mar 9 Cost 15758 877

(Handsome Timid?) in Melanthera deltoides Michx. In a leaf served up with
white stolobes, once folded, now rolled; solitary
growing. Very active here. Rush out when
disturbed then head shooting rapidly and
the feet extended, suggesting some predaceous
thing will drop to ground, run active and even
leap when touched.

4-5 elongate smooth valves under 2, somewhat
but green & green to center; anterior undivided
tiny. Bristles shaded with black a wavy
and fast. Angle; mouth dark, well set in
a black ground. Body slender, flattened,
conoid form tapering fast. I am 4 somewhat
colored. The feet long, conical, pointed
black; all small, rounded, slender, stretched
out laterally, evanescent in after note
occasionally. On large brownish flesh edge
smooth, but flat with 2 patches before. 2-6
deep vittae a conspicuous feature which
fold in measure 2-3 and 3-4. 5 and 6 densely
black bands, 6 broadest; beneath black.
7-8 opercula whitish, a curved black band
across before; ending in vi; a straight one across
it ending oblique fast. On 9 all mixed in
a large mostly pale patch or 10-13 somewhat in-
fusely smooth & having discoloration laterally.
Inferior vittae smooth, edge whitish.
Ground of plants olive-green, valve pale; beneath
and ship setae black. It has ii, is it apparent
in this long, vi dotted, viii 3 in a curved row each
on this in it separate王者; 11-12, 14-15. Ciliispin.
9-2 elongate. (Palm Beach Fls. Feb 21, 1905)

878 Cost Mar 15 Cost 15782


Pterophorid on 3-lobed leaf) I found
Palm Beach Feb 22 1905.
On the young leaf at end of short
stalk of a shrub common running gray
Pterophorid. All green, no marks.
except broken whitish d. line on base of
seg arcuata sd. Now, i am so confused
a single hair below it & no 2. Hair whitish stiff,
some of them green if it is blackish. Both a strong
brown yellowish sd, hard
and obscure warning streaks esp. lower & older.
not yellowish green, sd on lower part sd faint
of each hair's ridge. Hair very thick & pale tan.
in afternoon, not confluent, iii more remote from iv &
than before & less dense. It has some dark bars.

Cost Cost 15792 n 879 Evans' stalks with numerous
Sphaerophr. Cibolellum gracile (L.) Pfeil.
Palm Beach Fls. Feb 22-23 1905. In the old pods
eating the red seed pulp. Not green, instead a
muddy leaf pale (no young leaves in that bush)
straight, flattened, ends esp. pale obliquely
depressed; bases naked. So few dotted; so
region contrast; incisive well marked, def.
in segments short. Skin mainly densely
granular, a white line along edges
of 5-6 fold 3-4 edges with diffuse reddish on
both sides. A dorsal dark brownish red line
diffuse, indistinct on red part of seg, widest on
darker consisting of brown granules on a reddish
yellow ground. A brown granule before the
spine & 12 on upper edge 5-6 fold with a
central circular area containing a central
reddish granule. Consisting of reddish granules
which cover whole seg part; granules look like
green part but small with 2 strongly brownish
dry black, brownish whitish edges with large granules
10 that wide a purple

was probably on the Philibertia. [On the Anomia
was Philibertia and Chicoreus and Siderea were it]
white sp.

880 = 864

Syntomid? resting between leaves of Anomia
Floridana Bahia Beach, Fla. Feb 23 1900.
Hd 2.3 rounded, brown, shiny black, labrum
and antennae white, sutures of mouthparts
pale yellowish, not blacked. Body, Acastion
greatly resembling 844. Extracted 1 ventral spine
versally. 3 & 8 with one large sharp elongated
sd near. Total 15 or 16-12 with i-vi large
rounded, i, ii and v smaller than the others
3 ventrals each with a small fl. Venter a little flattened,
downy webbed. Ventral moderate.

Blackish gray, lighter S-V without markings.
Mouth fleshy brown, pale & whitish, hair
rather sparse, moderate, newg even but
soon longer on all ends and a trace of
a brown cresting hair in 12. Hair whitish
brown greater S-V. (brown - brown) But = 864?

(881 cont)

Anacanthus H. T. S. Mart. Hobel free, body black, base of abd
& labrum white. S-V with 1 ventral fl. Body cylindrical vent
unisexual and well lobed up 5-8, 12 enlarged d.
Ft small, punctate, round 9, 16, 17, marked
oblique style. Black, fine transverse lines with white.
15-20 like fine some confusion, some confluent
here, sub-reticulate, more below the fl. S-V pale
running longitudinally and more reticulate on
abdomen, mesalern a white spot each side, sd gray
but faint, white borders on 5, 6, 8-12, 9-11 broad!
Similar spot on S-V fed 7-12, largest 8-10. Area flab
+ bases of feet considerably, white reticulate. Thus far black
spotted with 2 Hd 2.7 round below, pale, 2 oblique lines
below + 2 ventral, body black, epipharyna white. No gas
seen in the black, white band + area of sd + ft.
large white spot. Body dark gray with brown hairs
S-V spots clearly orange, white edged, the sd on 5, 6
8-12, 9-13. The feet black.

Cale. .33 .58 .97 1.62 2.7 $\frac{6}{10}$
Pawd - 1.0 1.8 2.7 ~~apo~~ 9

881

Handsome little Syntomid on large leaved rare tree
Anomia laevigata ~~WV~~ I seen nearly so,
Feb 24 1900. Hd round and brown, thin apical
scutum lobed, mouth black, labrum narrow, white
in. v. un., body cylindrical, thickened at 5-7 and
12 which is well lirupped. Sides of 6 and 7 folded
and projecting, and jets in 9, 10 and 12. Body
black from 10 a little greenish with black
dorsal line, a pure white sd flab a 2, four
short lines in 8, the 2 upper being in joined
by a line, the second center of a black trapeze
(apparently ill). A high orange oblique sd spot
on 5 and 6 and a rounded one on 12. Setae
short, black. Legs annulate with the annulations
[Egg 2' sphere, 65 diam all small irregular pentagonal
reticulate. No ribs. Sets brown, pale.]

Feb 27 Hd 8 Paws, lobed, body black, labrum white
greatly thickened 3-7 forming a round thick loop ^{base of}
feet 9-14 successively ~~ventral~~ 8-12 enlarged triangular
sd flat very short + small of 7, 8th, round in 9, 10, 13.
Cephalothorax black, annulate, spotted with white
and white. White long spot but 2 as small as in
edge of ft; a test. patch on S-V on foot. Orange oblique sd
in 5 and 6; last patch on S-V faint and S-V spot on
8-10, annulus + d. in 12 [^{*} or absent]. None in 7, 9, 11
faint fine white trans. line between the dorsal annulus
that has 6 Hd 1.8 (Abd 1.0)

But Ap 7 1900. Cat no. 15831

Somodonta sinica Neum

Fest. note in Psychotria undata Palm Beach
Fla. Feb 24, 1900. Rock, the leaf of second
turns writes with stiches on the outside
and eat the inner turns. Run with.
Hd 1 rock long skin pale cream, hairs
suture in water but very narrow and obscure.
Moderate. 4 upper ocelli large, black ad
about antennae. Cx 1 large, bluish later
banded; w and fl. pub cylind. narrow
moderate, transparent colors, the
fin dark bluish green reddish in throat.
Tubercles large, colobes. Fins 10+10, 10+10. Oe abd 10+10
more in the top. 10+ base broad. Trachea
exterior middle whitish. Spiracle pale tan
tacca mixed. Setae long pale.

Another Hd 1.5 yellowish bottom, shaded on
right red brown on spine of lobes, shiny, clear
black, as before. Rock transparent, black
from top, shiny. On nearly black, banded
by pale line. Tubercles large, rounded bluish
at the extremities, colors centrally.

Dist Apr 8, 1900 certus 15834

Desmia tages L.

on wait which becomes in comparison to
whether walking, which becomes in comparison to
base of the feet are folded, the covered hard
clear, edges hidden by the upper black band and a
white space with black spot, always a
white white pink foot pink.

883 ~~eye cat~~ 15833

Splendid on 864 for plant Phitobius rufulus?
Palm Beach Fla. Feb 24 1900. Solitary
Hd 2.6 slender, flattened & held not flat, water
under 2, D low & wide face D face shield shape
green, which granules in upright whorls in
form like dark cells to sd line a body
long, slender, feet short uniform, extrudable
slight moderate pub. Diphthaleo-shape (the
long oblique broken). White of eye pink
white granules round, produced, trapped, like
making the surface rough. A smooth white
sd line 2 and I know which it curve up to
meet. Non whitish green, pink at base when
it touches sd line. Anal flap elliptical. Anal
by plate long D, reaching far beyond anal flap.
Spiracles white with black central rectangle.
Third pair! Hd 4 mm. Row elongate, water under 2
D 2.6 water Δ Gray green longitudinal striped with
fin black dots, a white line from anterior water
to lobes. Body slender round and fl. elongate &
banded, area by shield long D line and where
rounded, extending well beyond plate. Hair strong
black, but a short black one. Greenish gray fine
peppered black & white or green ground on stocklike
body white broad sd line 2-horn a narrow sharp
black d. line 2-4 and grey-blue by dots 5-11
the points obscure. Feet weak banded black, white
porous, black, white, green except anal. The feet
pale narrow lines granulate with black. Hd cone
dark yellow, brown black at base & surrounded by
a whitish ring. Spiracle brownish with a white dot
above as below. Looks like a stroke - no warning mark
into perfect still all day even banding, eat of at night.
(Set on back at where will grow become all very like
and a wavy line & in distinct will fall to ground.
Wings and above the folded wings of the feet which
are yellow with black bands.

(80 cent) Late larva of pale violet above & d stripes
abdomen brown & distinct, running out to white caudal
Entered June 8 Apr 8

884

~~the~~ *Euphorbia heterophylla* needs with 870 but
not a borer. Palm Beach Fla, Feb 25, 1900
Hd round & swift 17 x broad at verge, bases of and
epistoma white, ocelli and ends of and black
body, normal pyramidalism, last 11 about, iron,
or all IV + V. 1 in. in dia. Sordid greenish &
more or less red. Surface large jet black
polished - a pale yellow sd line 3-in broken
in measure. Cd transparent, densely black
spotted, anal flap sparingly spotted. Tho
few black, abt with hair tufts & silvery
black. Makes a web among the flowers.

Wing 2 antennae longer and making many chips

Ans Mar 30 1900, Cat no 15819

885 *Canna gracilis*

Few miles on swamp by ~~Lagoons~~ ~~lakes~~ ~~lakes~~ ~~lakes~~ ~~lakes~~ ~~lakes~~
Palm Beach, Fla, Feb 25, 1900 Leaf rolled up
with stiches without, inner part eaten, base in.
Hd 1.3 small for the large body which is high need to
water, pale lutes, with brownish, cells black
Body cylindrical tapering at both ends, moderate
moderate folder. Shield smooth transparent
finely textured margin at ends. Body transparent
a little reddish pinkish green. Cd with black
dots and little brown granules in a curved line
and side initials, anal fl. like tubercle
which are large those of 3, 4, 6, 13 have punctures
in the inters, 11 & 12 large elongate lengthwise,
IV + V. On abd 1 large than II oblique elongate slightly
downward; IV + V, is short, dorsal. feet short normal
Tubercles white & very dark.

Ans March 17 1900. Cat no 15769.

886

Euphorbia on Sabal palmetto Palm Beach, Fla
Feb. 26, 1900. Running a wide irregular path
on the back of leaf covered with a mat of loose
wet and commingled frass (palmetto fibre)
reaching down into a point of the leaf which
becomes dead and curled a field with the
small wavy leaves.

Hd 1.0

Hd .3 with cost jet black, rest of a faint
pale yellow. Cd transparent, densely mottled
with purple pigment, having a sharp pale
dorsal line. Tubercles small, black, setae long
pale dusky. feet normal short, thin, dusky.
Tubercles a little elevated

Ans Mar 3 1900 Cat no 15701-3 *Laverna subula*

titac above clasper black

(87 cent) slightly yellowish. Jaws black, labrum facets
brownish. Antennae mostly pale, dull brown shades
except the upper 2 brown. Body large, robust, smaller
before, anal plate large and thick, 12 edges) scarcely
with an enormous, black, club-like horn studded
with black cores (but not spiraled) not pointed
Sep. 8-branched. the ordinary granules numerous but
the sparse ones isolated pale and with outer
long and distinct 2 more dark, perfectly
visible without the lens. Green, dorsal crenulations
finely shading into purple, yellowish red and pink
(6-10), the oblique very faint, dark streak just
light edge except 12-13 where is a very distinct but
bright white line edged with dark green before.
Both oblique brown, the oblique comes back
whenon with brown tips. The 3 anal plates, now
triangular, green, covered with long sharp hairs
yellowish brown granules, faintly circled with yellow.
The abd fat green, the yellowish with streaked spots
blades & a few small whitish granules. Spicules large
dark brown, slender, pale above below with central white line

Art July 1900 *Amphibius antaeus* D'Or
Art 15959

July 6 1900

88)

Scribb on 881 Plymouth Anna Lawrence
Palm Beach Fla. July 26 1900 Hat not eaten.
met fcs a young leech 1.0 mm, pale green, oblique
ribbed, a small, wedge-shaped yellowish grey ocell back
lobum white body cylindrical, equal, maxima not
depressed, is a little enlarged with a long (3.7 mm)
short anterior horn, straight, oblique backward;
anal plate long & with a short erect horn (.5 mm)
back side middle before which the 12 horn
pit when depressed. Sps very fine granular, hor
subsegmenta, smooth smooth, petiole not rounded.
Pal green, folded impressions more yellowish, hor
black reddish above the spine, petiole slender
color may be nearly enlarged tips, pale on
dorsum, round ~~black~~ II, V above is and ant,
a seta 'a' by base, tubercles imperceptible.

Spine slightly greater above & below as
normal, rounded base white, thin. Dorsum
yellowish (greened). Setae not calcareous. 2.4 x 2.0 x 1.9
Horn 1.6 flat ~~sharp~~, high conical, the lobes
joined into short ones which are closely approximated
and contiguous & small. Pal green, straight, not
granular a short brown hair in face of lobes, more
dark as it runs toward center, small whitish
tubercles; horn long (5.5 mm) & thick with
front of irregular, reddish sparsely spined. Yellow
green, smooth dorsally; hor pale red brown toward
base top as sides and at tip, a black line extends
on this. Ant. and top D. near reaching end of
angle not flat. Dorsal are rounded triangular
spines pale ochreous a dark shade or tan.
outline behind vertex when ad rise above 2.
posterior obliquely forward. Sd horns anal plate short convex.
Horn depressed obliquely, touching horizon for half its
length the sides are oblique shaded but the roof the
line they appear as two oblique 12-13 and the
sd length divide in three. Body all cut

out 2-4 becoming smaller & tapering to large head.
Gill ~~area~~ Hd 2.5 high triangular the dorsal points
apex curving in front, making the flatter part look
concave, height 4.5 mm green, sides & back darker
a pale tan ochreous vertex. Hand granular sub-
spine in front before apex tips lobes yellowish
into a faint tan ~~black~~ back & each 1 arm color
red, about small before, then large & very thick
(3 mm) slight granular texture, extends round
horizontally. Green with dotted elongate pale yellow
granules, a faint 5d + 5s yellow line a strong ad
oblique 12-13. Wedge fading with white
border. Darker I. ad faint oblique shades 5-11.
Spine from pale at top & others. Horn densely
granular with thick coarse irregular tubercles black
or dark half (and) green yellow below just
at top of spine black absent green. The black out-
wardly anal shield green, black granules, a slight
gut tubercle represented former ad horn. Edge round
Horn ~~area~~ Hd 4 mm oblique as before, broad oblique
so that the vertex points form a neck of hd & level
with dorsum. Green, smooth, center, interspace lined
in low line after 2 whitish lines on the sides of each lobe
and one on the lobe, running to vertex. Red, absent,
small before anal, sparse yellow granula,
the granula filled ad also considerable pile between
them without usual granules. Green, d. line dark red, a
oblique yellow sharp horn 10, thin faint whitish line.
oblique dark oblique shaded 15-9. Anal plate 5
smooth dark ochreous granular, spines from, yellow
at top & bottom & a narrow vertical central line.
Line very long, dark coarse dense, conic spine
olivaceous yellowish below. Ab face green. Ths. black
in an otherwise stripe a basal point over all black
but coarse gray granules. Olivaceous without granules
d. line purple edge 5-11 pale edge to sides.
Horn ~~area~~ Hd 7 mm highly conical but without the
points of previous stage. Vertex rounded, median inter-
mediate, D very small, about 2 height, vertical membranes
to angle merge on the back, not reaching to right ten conical
vertices behind. Dispersed fine and with sparse round
smooth granules and a very few 2 hair brown vertex
green, slightly shiny a very obscure pale band up
and angles from well to vertex and a fainter one
a vertical fin base of ventral D. Apices of lobes
(1895-7)

Notried or Cordulia ferruginea eating young leaves,
Palm Beach Fla., Feb 26 1908. Hd. 2.5 Radii
10 mm. apex under 2 pairs of teeth in center; teeth
lanceolate green, ocelli due all the p tubercles black
mouth pale brown. Body cylindrical narrow
12 enlarged, feet capet. Coth transparent
green with black tubercles, anal flap smooth
narrowly. Whiteish green. Fine lined with
white & yellowish white; tubercles narrowly
black in obscure patches. In hairy blotch
about II, in - is in the lobe is faintly
stained with yellow, making the green the
yellowish green & the green pale yellow. Lins
as d.^{shg}, alvei, fimbri, over II, velvety strong, thin above
in the upper weeks, on III, velv III, on IV, velv
sparsely strong; between these are faint white
markings, and more distinct SV. Feet yellow
green, clasping reddish. The lobe markings
are broader and less crowded than the
others. Setae distinct black in 5 upper con-
tacts middle, 7 brace below middle, 6-10 upper
convs, 10 over above; 1 1/2 to V, 12 below L.
Sparsely white, black rimmed. On 3rd
a, b, c, d, e, ii, iii, iv, v, vi. all well separated round
a line along vi is distinct and almost continuous.
Without the lobe one sees a white space &
and broad yellowish outside, more distinct, but
with lines these resolve as above. (Set of on 12 bracts)
was being shown with oblique pointed a bump
on either side ground

Act Nov 27 Cat no. 15813

Leaf bugs on 881 plants Annona squamosa
Palm Beach Fla. Feb 27, 1908. Faster walking
than young leaves with stichia and bracts.
Solitary. Hd. 5.5 long. Abdomen mostly
triangular shiny, ocelli & mouth on line &
above black, mouth brown. Coth & a little notched
petiole, more incised greater dentition hairy,
ridges and the d with distinct sv red, slightly
flattened, incision lobed; pale green, tubercles
small & obscure pale smoky, on the 1-2
large, 10-11; on abd 1-2 small pyramidal four
sided plate small, smoky shiny.

Hd. 1.3 flattened, reticulated, pale Open to vertex
shiny

Specimens similar in marking with
♂ type lutheri Ckll. (fuscus).
Brownish, green bottom, green top
from just abp post 6-12 the d. vent dark
green. ab above 2 and 13. Should and tubercles
translucent, concolor. Tubercles moderate
slightly elevated. Setae fine, rather long round
tip not slightly shiny. Feet brown. Spike up
the lobe with a series of transverse walls of web,
with a round hole in each near the leaf for
leaves to pass through. Sets all ordinary black
from inside. Mouth shaded with blackish rough
tubercles & incisions.

Out Oct 15773 Tortricid Lophodera amatina Dym
* Out Mar 28 Cat 15816 another sp! tiny we

Specimens similar in marking with
♂ type lutheri Ck 11. (fusca).



Notched on Condalia ferruginea eating young leaves, Palm Beach Fla., Feb. 26, 1900. Hd. 2.5 Radial lobes, apex under 2, jaws & face to vertex; Area lucid green, ocelli and all the 13 tubercles black mixed pale brown. Body cylindrical narrow, 12 enlarged, few capes. Cph transparent green with black tubercles, and leaf gills narrowly. White green. Fins lined with white & yellowish white; tubercles narrowly black & obscure pale rings. In large blotches about II, III - IV vi the color is faintly stained with yellow, making the ground then yellowish green, then pure pale yellow. Fins I, II, III, IV, V, VI, VII, VIII strong, thin above in the upper week, on III below III, IV, V, VI, VII spiracles strong, between these and joints white mostly, and more distinct SV. Feet yellow green, clasping reddish. The fins marked "ring" are broader and less circled than the others. Setae distinct black IV 5 upper on below middle, three below middle 8-10 upper ones, 10 even above; 11-12 V, 12 below lower L. Spinae white, black rimmed. On 3rd to 6th, 9th, 10th, 11th, 12th, 13th, 14th, 15th, 16th all well separated round a line along vi is distinct and almost continuous. Without the fins are seen a white dorsal 10-12 and hind yellowish on top, more distinct, but with less trace resolve as above. Total up to 12 bands minus being broad with oblique furrows on bands & entire dorsal

Art March 27 Cat No. 15813

Leaf traces on 881 plant Annona squamosa Palm Beach Fla. Feb 27, 1900. Faster together than young leaves with stichia and puncta. Solitary. Hd. 5.5 long, little ^{slight} wider, smooth. Rings shiny, ocelli & mouth on lower L. Area black, mixed brown. Cph & a little outside spines, more scattered, broader, transverse shiny. Big 2 and others with distinct sv. pigmented flattened, incisive dentate; pale green, transverse small & obscure pale striated, in the last 1/4 of last, IV-V, in abd V-VI round pigments form small plate rows, striated, shiny. Hd 1.3 flattened, not tubercled, jaws open to vertex shiny pale green. Finlets brown triangular, ocelli under wings black. Body 2 mandibular, 5+5 gold moderate, all transverse dark green, but more or less, often much light yellow green from just off first 6-12 on d. ventral dark green as also 2 and 13. Should and 100% of the transparent, concolorous. Tubercles numerous slightly elevated. Setae thin, rather long, broad tip, but slightly shiny. Setae round. Of spine up the leaves with a series of transverse walls of web, with a round hole in each near the leaf for leaves to pass through. Setae all solid black from inside. Mouth obscured with blunting rough tubercles & incisive.

Outs Coll 15773 Tortricid Lophodens amotana J. M. Jr. tiny sp.
* Out Mar 28 Coll 15816 another sp!

890 = 879

Lycoceras or Sutlandina bimaculata
 young leaves Palm Reed, Fla., March 1, 1900
 Shape of 879 post-glands are all. Itd more
 long. Brownish green surface & D shiny a black
 black triangle, eye large black. Rest all
 soft yellowish green dense granular the pink
 shiny pale, silver esp on the prominent SW ridge
 the upper part of which is brownish in color. The
 pile which are brownish in color.
 shield, all uniform. And flat rounded
 height 32 mm. (7.8 cm) 21 mm. of
 61 long and narrow not rough &
 rough and very pointed

8681-41 1 mm. ^{201.91}
 Egg cup-shaped, rounded below. Hairs a few
 very small hollowed above with a
 central hair like a tuft of hair. Pale
 yellowish very minute reticulations seen. (7.8 cm)
 (7.8 cm) 61 long & 18 mm. very narrow
 though quite white hairs somewhat raised
 to 20 mm. (7.8 cm) very pointed
 and smaller at the top thin walls below
 8681-82 1 mm. by flattened upper ^{201.91}
 surface covered by a series of raised white
 lines, 6-8 radiating from each bump and
 passing up the bases of these prominent for a
 short distance by the 13 forming arcs between
 the prominences. D. 5 mm. - rough hairy
 (7.8 cm) 18 mm. & 1 mm. very
 narrow not rough & very pointed

8681-18 mm.

^{201.91}
20 06

Wet 4 length 8 mm. even white granular, d. round
 darker, sides oblique shaded pale. a white or
 thin or pale, esp in upper are D, pinkish rose
 though very pale & more in a elevated area
 on upper than in d. measure 11-12. The granules pale
 stellate into central brownish pile-seta, the seta
 very fine stipulate. Hair between minute pointed
 hairs. Between ^{201.91} 2 and 13 large.
 No central brownish rose. Lower density
 epidermis pale, edges in ^{201.91} pinkish white. W. ^{201.91} Q
 (7.8 cm) L. 1 mm. of 1.5 mm. very narrow
 not rough & very pointed

8681-81 1 mm. ^{201.91}

One Mar 27 Cat no 15814 *Lycoceras annuum*
 1 mm. of 1 mm. ^{201.91}

rough (7.8 cm) 1 mm. very narrow
 61 1 mm. very narrow
 not rough & very pointed

8681-61 1 mm. ^{201.91}

1 mm. of 1 mm. ^{201.91}

rough hairy (7.8 cm) 1 mm. very narrow
 61 1 mm. very narrow
 not rough & very pointed

8681-61 1 mm. ^{201.91}

^{201.91}
20 06

891

Miner in stem of Sylandria bonducella,
when the epidermis of the tube, a thin
yellow irregular wavy & occurring skin
white at first with central dark part
~~mozo~~ ~~mozo~~ late turn brown.

(J. Brack) ~~mozo~~ hymen (4*)
Palm Beach Fla March 1 1904
1681-1903-4-11 off most common
red yellow orange to brownish

1681-1903-4-11 ~~mozo~~ ~~mozo~~

out (Brack)

~~mozo~~

mozo yellow
outer surface darker (21 4*)
yellow 11 off 21 11 off most common
of yellow orange to brownish

1681-1903-4-11 ~~mozo~~

~~mozo~~

yellow yellow
inner surface yellow
outer surface darker
yellow 4* (most) top 4* a small
part yellow from below
yellow from above

1681-1903-4-11 ~~mozo~~

~~mozo~~

892

Licea irregular crumpled min on
upper surface of Myrica cerifera
Palm Beach Fla Mar 3, 1905.
gradually becoming common, starting
anywhere a little minute parts
straight. Hair bristly and stiff
(J. Brack)

clust

~~mozo~~ ~~mozo~~
~~mozo~~ ~~mozo~~-
(most) - 4- (most)
most common
yellow, white, yellow
crossed from side to side

1681-82. July

~~mozo~~

~~mozo~~ ~~mozo~~
~~mozo~~ ~~mozo~~-
(most) - 4- (most)
most common
yellow, white, yellow
crossed from side to side

1681-82. July

~~mozo~~

Care cutten in Mycio cerifera
Paler Read. See No. 3. 1900.
Wax on upper side, care small
Ceris 1900. (in Burke)

mappes me hysus

(0.08) 0.8 mm of

fl 61 mm of meristem of

wh. opp & to round of 20' 18'

87. no. 1681

now low

mappes metaplasia

(0.08) 61. m. opp &
fl. in hysus, met. oblong
ref. wh. opp & to round of

87. no. 1681

now low mappes metaplasia

(0.08) 0.98 L. opp hysus 27

0.1 fl. hysus met. oblong ref

wh. opp & to round of

L. opp hysus

20' 18'

Simple midrib blotch min starting at midrib
or margin and reaching edge in upper side of
leaf of Metathere deltoides (M. Hand) Blum
"midrib hysus" 49 1900. Margin smooth
slightly wavy at mid of margin ~~at mid of~~

(0.08) 0.1 fl. hysus & 21' 18' hysus

met. oblong met. pos (0.18)

opposite of upper met. margin

ref. wh. opp & to round of

wh. 0.1 fl. hysus 20' 18' 27' 18'

cylindrical second anthers for hysus

pale yellow, rather solid pale and grayish

yellowish. Tuberous & rather oblong.

wh. fl. with bell-shaped tube shaped D, apex

white, pale brown on sides, 0 pale 0.18'

white 3 pointed horn like meeting above

22' 18' 1.5 cm met. opus ref

the cell has a double rounded pointed

conical wh. opp & to round of

20' 18' 27' 18'

about 1 mm thick. Stems projects

when intense. all above

except a pair of small leaves

20' 18' 27' 18'

met. epiphyte 21' 18'

21' 18' opp & met. oblong

wh. opp & to round of

20' 18'

Podosacia syringae like 850 except more
yellow has a weak lense and very Brady
feature. The 1st instar is dark
brown where 850 is light red brown, but
this may be solely due to age.
(Calculated U.S.N.M. Sept. 2983)

895

egg of Coptis asplenioides (?) on Xanthoxylon
pterota NBK Palm Beach Fla., March 6, 1900

Large round brown egg.
Hatched Mar 8. Dark brown, white saddle and spot
large marks. Not at all orange.

Shed Mar 15

Shed Mar 22

Shed Mar 28

Shed Apr 4 slender waist, big thorax, white
saddle and spot. Resembles bird
excrement.

Shed Apr 12 still with saddle and spot
slight modification with other marks.
obviously asplenoides. Duplicated for coll April 16

16191#

not wings of nymph

a ~~wings~~ exuviae no s
days the pupa now a few
of orders of my in some
2nd - 3rd wh 823 my 2033

78/28 top

80442#

not wings of nymph
top my my 1st 2nd 3rd
a ~~wings~~ exuviae no s always
the pupa now a few of
orders of my in some
2nd - 3rd wh 823 my 2033

78/40 top

not wings of my - 1st 2nd
a ~~wings~~ exuviae no s always
the pupa now a few of
orders of my in some
2nd - 3rd wh 823 my 2033

69

~~Scaphium tricocca (Alc. Desfogr 6295).~~

18-22. Spins $\frac{6}{6} \frac{6}{8} 1$ - 783 $\frac{1}{2}$ " / hr.

top & middle quills as long
as wings but shorter than the
tail feathers which are
twice as long as the middle quills.
Laysan Island Aug 23 1903

MP "J" 5 688/17 July
Dear Esmond and all
those who know me up and
down of whom far and wide
I have written to you all
and will do so again.

898

and the

788/ 1st half of my no
number to help it fit to memory

W H "J" S

(88/100) 220 & 220 & 220 & 220
and have two more ships and
the rest of the ships for now for
the rest of the day to come.

~~myff ymff~~

1881 $\frac{1}{10}$ lynch top & obso no
sunlight ushgs n 3 cuy & p. m. y.
~~myff "y"~~

~~myff "y"~~

1881 $\frac{1}{10}$ lynch
top & obso - p. m.
no sunlight ushgs n 3 cuy &
obso ushgs n 3 cuy & p. m.
ushgs n 3 cuy & p. m.

~~myff ymff~~

1881 $\frac{1}{10}$ lynch
obso ushgs n 3 cuy &
ushgs n 3 cuy & p. m.

Sesia scitula from Bentenmiller 900 A
March 29 1900. Scand, complete, but
second (ii) annulus, putting the higher, 5-6
mm. long. ~~slender~~. Small small
horn sharp. ~~moderately~~ moderate clean
color moderate brown. Crickets 12-15

1881 $\frac{1}{10}$ lynch top & obso
quiescent ushgs obso no ushgs
no sunlight ushgs ushgs
n 3 cuy & p. m. no sunlight ushgs
ushgs n 3 cuy & p. m.
ushgs n 3 cuy & p. m.

1881 $\frac{1}{10}$ lynch top & obso
quiescent ushgs obso no ushgs
no sunlight ushgs ushgs
ushgs n 3 cuy & p. m.
ushgs n 3 cuy & p. m.

1881 $\frac{1}{10}$ lynch top &
obso ushgs n 3 cuy &
ushgs n 3 cuy & p. m.
ushgs n 3 cuy & p. m.

~~work done~~

188/ ~~per hour &~~
per hour & per day
for all work done
by me & my
servants who are
employed by me

~~work done~~

188/ ~~per hour & per day~~
per hour & per day
for all work done
by me & my
servants who are
employed by me

2

~~work done~~

188/ ~~per hour & per day~~
per hour & per day
for all work done
by me & my
servants who are
employed by me

Received of Mrs Dyer \$ 25.00
payment in full for one
Month's wages - ending Feb
28th 1878.

Hos Marshall

Received of Mrs Dyer \$ 30.00.
payment in full for one
Month's wages - ending Feb
28th 1878.

Adam O'Neill

Received of Mrs Dyer \$ 12.90
payment in full for bread from
Sept 13th 1877 to Feb 28th 1878.

Mrs H. D. Maynard

Per D. Maynard

Received from Mrs Dyer
\$16.00 payment in full for
the board of one man for
the month ending Feb 28th
1878

Adair O'Neill

Received from Mrs Dyer on
account \$40. which is payment
in full for my wages to March
8th 1878 - My mark -

Received from Mrs Dyer on
account \$26.75 which is payment
in full for my wages to March 29th 1878

Received from Mrs Dyer \$25.00
which is payment in full for
my wages to April 1st 1878

Adair O'Neill

Received from Mrs Dyer \$30.00
which is payment in full for
my wages to April 1st 1878.

Adair O'Neill

Received from Mrs Dyer

payment in full for wages
and accounts to April 1st
1878 and advance to May 1st

G. L. O'Neill

for work done - payed (?)

and advance to May 1st

7 26

Received of Mrs E R Dyer Executrix
\$145²⁵ payment in full for his
wages and those of the men
under his charge up to May 1st
1878.

G. L. Acheson

Received of Mrs E R Dyer Executrix
141²⁵ payment in full for
my wages and those of the
men under my charge to date,
1878.

G. L. Acheson

Received of Mrs E R Dyer
Executrix \$124.80 payment
in full for wages and the
men under my charge to
July 1st 1878

G. L. Acheson

May 1st 1878

Received payment in full for
my wages and those of the men
under my charge up to May 1st
1878.

May 1st 1878

Received payment in full for
my wages and those of the men
under my charge up to May 1st
1878.

May 1st 1878

Received payment in full for
my wages and those of the men
under my charge up to May 1st
1878.

My Recd

6681 $\frac{11}{20}$ / 225 &
obliged him now and always
and above of my no. & numerous
payments up to 23 and Especiallly

My Recd

6681 $\frac{11}{20}$ / 120 & above
him now and always
and above of my no. & numerous
payments up to 23 and Especiallly

My Recd

6681 $\frac{11}{20}$ / 120 & above
him now and always
and above of my no. & numerous
payments up to 23 and Especiallly

Received of Mrs E H Dyer
Executor payment in full
for my services and the men
under my charge to Nov 1st 1878

G. L. Asher

Received of Mrs E H Dyer ex
payment in full for services to
Dec 1st 1878.

Adam O'Neill

Received of Mrs E H Dyer Ex payment
in full for services and biles, and
the men under my charge to
Dec 1st 1878.

G. L. Asher

Received of Mrs E H Dyer Executrix
for my wages and share of the men
under my charge to Jan 1st 1879.
\$132.83.

G. L. Aches

Received of Mrs E H Dyer Executrix
for my wages and share of the men
under my charge to Feb 1st 1879
in full 162.00

G. L. Aches

Received of Mrs E H Dyer Executrix
for my wages and share of the men
under my charge. \$82.94 for wages
and \$10 for payment of Hartman's
to March 1st 1879 payment in full.

G. L. Aches

Received of Mrs E H Dyer Executrix
for my wages Jan 1st to Feb 1st 1879
under my charge \$129.30 payment for
two stable \$40.00 carriage plus
\$5.00 payment in full to date

Received of Mrs E H Dyer Executrix
for my wages and share of the men
under my charge \$162.00 payment in
full to date

Received of Mr E H Dyer Executrix
for my wages and share of the men
under my charge payment in
full to date

Received of Mrs E H Dyer exec
payment in full for my wages
and those of the men under
my charge to June 1st 1879.

G. L. Aches

Received of Mrs E H Dyer exec
payment in full for my wages
and those of the men under my
charge to July 1st 1879

G. L. Aches

Received of Mrs E H Dyer exec
payment in full for my wages
and those of the men under my
charge to Aug 1st 1879.

G. L. Aches

Received of Mrs E H Dyer exec
payment in full for my wages
and those of the men under
my charge to Sept 1st 1879.

+

Received of Mrs E H Dyer exec
payment in full for my wages
and those of the men under
my charge to Oct 1st 1879.

Received of Mrs E H Dyer exec
payment in full for my wages
and those of the men under
my charge to Nov 1st 1879.

Received of Mrs E H Dyer exec
payment in full for my wages
and those of the men under
my charge to Dec 1st 1879.

Aug 10 J.Y.

8681

" 180 & draw his wages unto
my pay book & others ref my no
pension to value it 3 my & pension

Aug 11 J.Y.

8681 " 1870 \$

draws his wages unto my pay
book & others ref my no pension
to value it 3 my & pension

Aug 12 J.Y.

8681

" 180 & draw his wages
unto my pay book & others
ref my no pension ~~it is~~
to value it 3 my & pension

Received of E H Dyer Executive
payment in full for my wages
and those of the men under
my charge to March 1st 1880

G. L. Atter,

Received of E H Dyer Executive
payment in full for my wages
and those of the men under
my charge to May 1st 1880

G. L. Atter

206

Received of Mrs E R Dyer
payment in full for my wages
and share of the men under my
charge to June 1st 1880.

G. L. Asher

Received of Mrs E R Dyer payment
in full for my wages and share
of the men under my charge and
accounts balanced to July 1st 1880.

G. L. Asher

Received of Mrs E R Dyer payment
in full for my wages and share of
the men under my charge and
all accounts in full to Aug 1st
1880.

G. L. Asher

Received of Mrs E R Dyer Executive
payment in full for my wages
and share of the men under my
charge - and accounts balanced
to date Jan 1st 1881.

G. L. Asher

Received of Mrs E R Dyer Executive
payment in full for my wages and
accounts to date Jan 22^d 1881

Frank Fisher

Received of Mrs E R Dyer Executive
payment in full for my wages those of
the men under my charge and accounts
to date Feb 1st 1881.

G. L. Asher

Received of Mrs E N Dyer executing
payment in full for my wages
and chiss of the men under my
charge, and all accounts settled.

To March 1st 1881.

Frank Fisher

~~Frank Fisher~~

~~Because~~ ~~the~~ ~~same~~ ~~things~~ ~~will~~ ~~be~~ ~~done~~ ~~by~~ ~~G.H.~~ ~~Smith~~ ~~in~~ ~~1910~~ ~~for~~ ~~the~~ ~~Government~~

Ques Apr 29 Cat no 15835

$$\cancel{900} c = 834$$

~~Wiggly larvae in the bushes made me~~
magdalena purple by larvae of Pyrane-
mitta, sent by Mr. Kingel from Palm
Beach Feb. April 1900

apr. 12 Hd. 8 rounded lobed, minute
porated smooth & color beige and be-
fore, shiny black epidermis pale C-H
various, semicircular, shallowly cutouts
below black. Feet 2 black, other pale.
Body slender, base white, d. granula in
darken, few dark, shiny places & d.
well as base is some white pigment on
each side. Mouth set. Tumult. Tubercles
unter body, pale with brown main dots;
IV+V, i dissecta is very roundish d.; anal
plate brown granules. The spin. want 2 long black,
2 blackish. I+II, II+III, IV+V; a abd. setae
IV+V pale also the others. Feet normal. Spin.
fining granules much smaller esp. Spin black O
hd (63) flattened, bilobed, rather under 2, & many
in variety; dark brown, shiny epidermis and
pale points and white; ocelli large, black
C-H large over whole & reaching pre spinal
tubercle oblique rather behind, with intervals of 2
interior rows; freedom black centrally & below
body variegated olivaceous green, slantch, a little
flat vertically 3-angled, 1st small. d. ventral
tumult by transposing. Tubercles moderate white
contrasted with brown hair tubercles. Anal pl. unit
tubercles & traces of brown function. The feet
brown, abd small, normal. Tubercles as
before, setae moderate, pale. Spots black
ringed. 2 whitish in an edge to abd.

900 g

stem bore in young tufts of Gutierrezia lindbergii sent to Brooks originally without a number. Another from Mr. Kriegel described April 26 1900 (Palm Beach Fla) Hd rounded lobed vertex made 2, but not flat; vertex flat before smooth shiny light brown, a black line on post 2 & other two sides from center of D and from dark brown; paved to vertex. w. 9 End robust, slightly flattened, it assumes slight feed when lowered. C. H. transparent faintly between body and dorsal yellowish. Seggs 7 pairs 3 annuli dorsally shiny. Tubercles small circular, colorless, posterior medially pale sparsely ^{rimmed} black, dorsal to H, IV+V vi present now, VII & 5 in a wide Δ. skin minute granula, shagreened. Anchors in with 11 a. h. not approximate hind & a pale d. line.

(758 cont) ~~Shed April 28~~ Hd 3.3 Head & head on flat, apex narrowly made 2, graduate, D centrally & top of lobe a trit. bulging, jaws twice as long as vertex. Large anterior propodeum a little curved inward. Gray brown shield, mouth epistome & central part of jaws & vice white, lateral diffuse line each side in center and on side of lobe II to body, antennae pale, body slightly flattened, robust, not moderate of height nor form, no bumps. Tubercles clearer come, those like more distinct on post & of body. Two feed curves, apparent, abd long, 13 with large D plate pushed behind into thick sub-anal process. Anal plate D, with a central carina post that becomes a groove and the post edge is dentated by 4 tubercles, setae short & pointed longer on anal H. Body brown & blackish, relieved by white. Brown white, almost entire overlaid by other colors. D. sp. mottled red-brown & obscure, an ill defined semicircle d. line, shiny on dorsal blackish post. at ends of segs. A broad shaded blackish band; a last 2 stig blackish band, all ill defined, mostly the space between shaded color & brown, with white shining in spot or post edge of segs. A broad sv band, a narrow one each side obscure median ventral, all dark are like the other. Space between similar granulated. Ventr 9-5 on spot below spines on so fold are lighter, yellow between the dark bands. The feed whitish; abd darkly mottled, blackish gray. Lines continuous over the shields. Spine gray, black rimmed.
15264 = Endlaena serrata Den (not desc KED)
Sens XVI shorter than gnathae June 18 (inflated rather than get large)

March 1878

House book

Mr & Mrs

1000

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